STATE MATCH SUPPLEMENT

Rhode Island Grade-Level/-Span Expectations

Language Arts, Mathematics, and Science
Grades 8–12

and

EXPLORE®, PLAN®, the ACT®, and WorkKeys®

January 2011

ACT®

List of Supplement Tables

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Preface

This document is a supplement to the *State Match Rhode Island Grade-Level/-Span Expectations Language Arts, Mathematics, and Science Grades 8–12 and EXPLORE, PLAN, the ACT, and WorkKeys (January 2011)*. This supplement identifies specific ACT College Readiness Standards that correspond to each Rhode Island GLE or GSE in a side-by-side format. The left side of each page presents the Rhode Island GLEs or GSEs (highlighted if measured by ACT's corresponding testing program). The right side of each page presents the specific ACT College Readiness Standard(s) and WorkKeys skill(s) that correspond to each Rhode Island GLE or GSE.

Rhode Island GLEs and GSEs listed here are from the Rhode Island Grade-Level/-Span Expectations as presented on the Rhode Island Department of Elementary and Secondary Education website in November 2010.

Supplement
TABLES 1A–1D:
Language Arts

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
Early Reading Strategies	
R-9. Phonological Awareness	
[No GLE at this grade level]	
R-10. Concepts of Print	
[No GLE at this grade level]	
Reading Fluency and Accuracy	
R-11. Reading Fluency and Accuracy	
R-8-11. Reads grade-level appropriate material with: • **R-8-11.1.** Accuracy: reading material appropriate for grade 8 with at least 90–94% accuracy • **R-8-11.2.** Fluency: reading with appropriate silent and oral reading fluency rates determined by text demands, and purpose for reading • **R-8-11.3.** Fluency: reading familiar text with phrasing and expression, and with attention to text features such as punctuation, italics, and dialogue	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
	Generalizations and Conclusions:
	Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw simple generalizations and conclusions using details that support the main points of more challenging passages
	Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
	Draw generalizations and conclusions about people, ideas, and so on in more challenging passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
Word Identification Skills and Strategies	
R-1. Word Identification and Decoding Strategies	
R-8-1. Applies word identification/decoding strategies by… • **R-8-1.1.** Identifying multisyllabic words by using knowledge of sounds, syllable division, and word patterns **R-8-1.2–R-8-1.6.** *[No GLE at this grade level]*	
Vocabulary	
R-2. Vocabulary Strategies	
R-8-2. Students identify the meaning of unfamiliar vocabulary by… • **R-8-2.1.** Using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes, base words, common roots, or word origins; or context clues; or other resources, such as dictionaries, glossaries, thesauruses; or prior knowledge)	**Meanings of Words:** Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
R-3. Breadth of Vocabulary	
R-8-3. Shows breadth of vocabulary knowledge through demonstrating understanding of word meanings and relationships by… • **R-8-3.1.** Identifying synonyms, antonyms, homonyms/ homophones, shades of meaning, or word origins, including words from other languages that have been adopted into our language EXAMPLE: (word origin from other language): de'ja' vu • **R-8-3.2.** Selecting appropriate words or explaining the use of words in context, including content specific vocabulary, words with multiple meanings, or precise vocabulary	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Identify clear relationships between characters, ideas, and so on in more challenging literary narratives Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Generalizations and Conclusions: Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages
Literary Texts	
R-4. Initial Understanding of Literary Texts	
R-8-4. Demonstrate initial understanding of elements of literary texts by… • **R-8-4.1.** Identifying or describing character(s), setting, problem/solution, or plots/subplots, as appropriate to text; or identifying any significant changes in character or setting over time; or identifying rising action, climax, or falling action • **R-8-4.2.** Paraphrasing or summarizing key ideas/plot, with major events sequenced, as appropriate to text • **R-8-4.3.** Generating questions before, during, and after reading to enhance/expand understanding and/or gain new information • **R-8-4.4.** Identifying the characteristics of a variety types/ genres of literary text (e.g., literary texts: poetry, plays, fairytales, fantasy, fables, realistic fiction, folktales, historical fiction, mysteries, science fiction, myths, legends, short stories, epics, novels, dramas) • **R-8-4.5.** Identifying literary devices as appropriate to genre: rhyme schemes, alliteration, simile, dialogue, imagery, metaphors, flashback, onomatopoeia, repetition, personification, or hyperbole	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Identify clear relationships between characters, ideas, and so on in more challenging literary narratives Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages
R-5, R-6. Analysis and Interpretation of Literary Text, Citing Evidence	
R-8-5. Analyze and interpret elements of literary texts, citing evidence where appropriate, by… • **R-8-5.1.** Explaining or supporting logical predictions • **R-8-5.2.** Describing characterization (e.g., stereotype, antagonist, protagonist), motivation, or interactions, citing thoughts, words, or actions that reveal characters' traits, motivations, or their changes over time • **R-8-5.3.** Making inferences about cause/effect, internal or external conflicts (e.g., person versus self, person versus person, person versus nature/society/fate), or the relationship among elements within text (e.g., describing the interaction among plot/subplots) • **R-8-5.4.** Explaining how the narrator's point of view affects the reader's interpretation • **R-8-5.5.** Explaining how the author's message or theme (which may include universal themes) is supported within the text • **R-8-5.6.** *[Subsumed under R-8-5.2 and R-8-5.3]*	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
	Generalizations and Conclusions:
	Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw simple generalizations and conclusions using details that support the main points of more challenging passages
	Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
	Draw generalizations and conclusions about people, ideas, and so on in more challenging passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
R-8-6. Analyze and interpret author's craft, citing evidence where appropriate by… • **R-8-6.1.** Demonstrating knowledge of author's style or use of literary elements and devices (e.g., imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, or use of punctuation) to analyze literary works • **R-8-6.2.** *[Subsumed under R-8-6.1]*	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages
R-16. Generates a Personal Response	
R-8-16. Generates a personal response to what is read through a variety of means… • **R-8-16.1.** Comparing stories or other texts to related personal experience, prior knowledge, or to other books • **R-8-16.2.** Providing relevant details to support the connections made or judgments (interpretive, analytical, evaluative, or reflective)	
Informational Texts	
R-7. Initial Understanding of Informational Text	
R-8-7. Demonstrate initial understanding of informational texts (expository and practical texts) by… • **R-8-7.1.** Obtaining information from text features (e.g., table of contents, glossary, index, transition words/ phrases, transitional devices, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations) • **R-8-7.2.** Using information from the text to answer questions, to state the main/central ideas, or to provide supporting details • **R-8-7.3.** Organizing information to show understanding or relationships among facts, ideas, and events (e.g., representing main/central ideas or details within text through charting, mapping, paraphrasing, summarizing, comparing/contrasting, or outlining) • **R-8-7.4.** Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information • **R-8-7.5.** Identifying the characteristics of a variety of types of text (e.g., reference: reports, magazines, newspapers, textbooks, biographies, autobiographies, Internet websites, public documents and discourse, essays, articles, technical manuals; and practical/ functional: procedures/instructions, announcements, invitations, book orders, recipes, menus, advertise-	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
ments, pamphlets, schedules)	Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw generalizations and conclusions about people, ideas, and so on in more challenging passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
R-8. Analysis and Interpretation of Informational Text, Citing Evidence	
R-8-8. Analyze and interpret informational text, citing evidence as appropriate by… • **R-8-8.1.** Explaining connections about information within a text, across texts, or to related ideas • **R-8-8.2.** Synthesizing and evaluating information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas) • **R-8-8.3.** Drawing inferences about text, including author's purpose (e.g., to inform, explain, entertain, persuade) or message; or explaining how purpose may affect the interpretation of the text; or using supporting evidence to form or evaluate opinions/judgments and assertions about central ideas that are relevant • **R-8-8.4.** Distinguishing fact from opinion, and identifying possible bias/propaganda or conflicting information within or across texts • **R-8-8.5.** Making inferences about causes or effects • **R-8-8.6.** Evaluating the clarity and accuracy of information	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
	Meanings of Words: Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw generalizations and conclusions about people, ideas, and so on in more challenging passages
Reading Strategies	
R-12. Strategies for Monitoring and Adjusting Reading	
R-8-12. Demonstrates ability to monitor comprehension for different types of texts and purposes by… • **R-8-12.1.** Using a range of self-monitoring and self-correction approaches (e.g., predicting and confirming, rereading, adjusting rate, sub-vocalizing, consulting resources, questioning, skimming, scanning, using syntax/language structure, semantics/meaning, or other context cues)	
R-13. Reading Comprehension Strategies	
R-8-13. Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text. EXAMPLES of reading comprehension strategies might include: using prior knowledge; sampling a page for readability; summarizing; predicting and making text based inferences; determining importance; generating literal, clarifying, and inferential questions; constructing sensory images (e.g., making pictures in one's mind); making connections (text to self, text to text, and text to world); taking notes; locating, using, and analyzing text features (e.g. transition words, subheadings, bold/italicized print, parts of the book); or using text structure clues (e.g. chronological, cause/effect, compare/contrast, proposition and support, description, classification, logical/sequential)	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE Reading College Readiness Standards
Reading	
Breadth of Reading	
R-14. Reading Widely and Extensively	
R-8-14. Demonstrates the habit of reading widely and extensively by… • **R-8-14.1.** Reading with frequency, including in-school, out-of-school, and summer reading • **R-8-14.2.** Reading from a wide range of genres/kinds of text, including primary and secondary sources, and a variety of authors (e.g., literary, informational, and practical/functional texts) • **R-8-14.3.** Reading multiple texts for depth of understanding an author, subject, theme, or genre subject, theme, or genre	
R-17. Participating in Literate Community	
R-8-17. Demonstrates participation in a literate community by… • **R-8-17.1.** Self-selecting reading materials in line with reading ability and personal interests • **R-8-17.2.** Participating in indepth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others	
R-15. Reading for Research Across Content Areas	
R-8-15. Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by… • **R-8-15.1.** Identifying and evaluating potential sources of information • **R-8-15.2.** Evaluating information presented, in terms of completeness and relevance • **R-8-15.3.** Gathering, organizing, analyzing, and interpreting the information • **R-8-15.4.** Using evidence to support conclusions	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
Habit of Writing	
W-10. Writing Process	
W-8-10. Students use a recursive process, including pre-writing, drafting, revising, editing, and critiquing to produce final drafts of written products.	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightfor-ward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements Revise vague nouns and pronouns that create obvious logic problems Delete obviously synonymous and wordy material in a sentence Revise expressions that deviate from the style of an essay Delete redundant material when information is repeated in different parts of speech (e.g., “alarmingly startled”) Use the word or phrase most consistent with the style and tone of a fairly straightforward essay

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
	Determine the clearest and most logical conjunction to link clauses Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence Identify and correct ambiguous pronoun references Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of* **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object)

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
	Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons
W-11. Writing Extensively	
W-8-11. Demonstrates the habit of writing extensively by… • **W-8-11.1.** Writing with frequency, including inschool, out-of-school, and during the summer • **W-8-11.2.** Sharing thoughts, observations, or impressions • **W-8-11.3.** Generating topics for writing EXAMPLES: Journal writing, free writes, poetry, quick writes, scientific observations, learning logs, readers'/writers notebook, letters and personal notes, reading response journals, sketch journals/cartooning, songs, lyrics, reflective writing, short plays • **W-8-11.4.** Writing in a variety of genres	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
Structures of Language	
W-1. Applying Understanding of Sentences, Paragraphs, and Text Structures	
W-8-1. Students demonstrate command of the structures of sentences, paragraphs, and text by… • **W-8-1.1.** Using varied sentence length and structure to enhance meaning (e.g., including phrases and clauses) • **W-8-1.2.** Using the paragraph form: indenting, main idea, supporting details • **W-8-1.3.** Recognizing organizational structures within paragraphs or within texts EXAMPLES (of text structures): description, sequence, chronology, proposition/support, compare/contrast, problem/solution, cause/effect, investigation • **W-8-1.4.** Applying a format and text structure appropriate to the purpose of the writing • **W-8-1.5.** *[Subsumed in W-8-1.1]* • **W-8-1.6.** Applying directionality as appropriate to text	**Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
Reading-Writing Connection	
W-2. Writing in Response to Literary or Informational Text—Showing Understanding of Ideas in Text	
W-8-2. In response to literary or informational text, students show understanding of plot/ideas/concepts by… • **W-8-2.1.** Selecting and summarizing key ideas to set context • **W-8-2.2.** *[Subsumed in W-8-2.1]* • **W-8-2.3.** Connecting what has been read (plot/ideas/concepts) to prior knowledge, other texts, or the broader world of ideas, by referring to and explaining relevant ideas • **W-8-2.4.** *[Not assessed at this grade level]*	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
W-3. Writing in Response to Literary or Informational Text—Making Analytical Judgments about Text	
W-8-3. In response to literary or informational text, students make and support analytical judgments about text by… • **W-8-3.1.** Stating and maintaining a focus (purpose), a firm judgment, or point of view when responding to a given question • **W-8-3.2.** Making inferences about the relationship(s) among content, events, characters, setting, theme, or author's craft EXAMPLES: Making links to author's choice of words, style, bias, literary techniques, or point of view; making links to characteristics of literary forms or genres • **W-8-3.3.** Using specific details and references to text or relevant citations to support focus or judgment • **W-8-3.4.** Organizing ideas, using transitional words/ phrases and drawing a conclusion by synthesizing information (e.g., demonstrate a connection to the broader world of ideas)	
Expressive Writing	
W-4. Narratives—Creating a Story Line	
W-8-4. In written narratives, students organize and relate a story line/plot/series of events by… • **W-8-4.1.** Creating a clear and coherent (logically consistent) story line • **W-8-4.2.** Establishing context, character motivation, problem/conflict/challenge, and resolution, and maintaining point of view • **W-8-4.3.** Using a variety of effective transitional devices (e.g., ellipses, time transitions, white space, or words/ phrases) to enhance meaning • **W-8-4.4.** *[Not assessed at this grade level]* • **W-8-4.5.** Establishing and maintaining a theme • **W-8-4.6.** Providing a sense of closure	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
W-5. Narratives—Applying Narrative Strategies	
W-8-5. Students demonstrate use of narrative strategies by… • **W-8-5.1.** Creating images, using details and sensory language to advance the plot/story line • **W-8-5.2.** Using dialogue advance plot/story line • **W-8-5.3.** Developing characters through description, dialogue, actions, and relationships with other characters, when appropriate • **W-8-5.4.** Using voice appropriate to purpose • **W-8-5.5.** Maintaining focus • **W-8-5.6.** Selecting and elaborating important ideas; and excluding extraneous details • **W-8-5.7.** Controlling the pace of the story EXAMPLE: Developing the narrative with greatest emphasis on the most important parts	
W-12, W-13. Poetry	
W-8-12. In writing poetry, students demonstrate awareness of purpose by… • **W-8-12.1.** Writing poems in a variety of voices for a variety of audiences (purpose) • **W-8-12.2.** Writing poems that express speaker's moods, thoughts, or feelings • **W-8-12.3.** Choosing conventional or alternative text structures to achieve impact EXAMPLES (text structures): free verse, haiku, concrete poems	
W-8-13. In writing poetry, use language effectively by… • **W-8-13.1.** Selecting vocabulary according to purpose and for effect on audience • **W-8-13.2.** Using rhyme, figurative language EXAMPLES (of figurative language): simile, personification, alliteration, onomatopoeia • **W-8-13.3.** *[Not assessed at this grade level]* • **W-8-13.4.** Using a variety of poetic forms	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
W-14. Reflective Essay	
W-8-14. In reflective writing, students explore and share thoughts, observations, and impressions by… • **W-8-14.1.** Engaging the reader by establishing context (purpose) • **W-8-14.2.** Analyzing a condition or situation of significance (e.g., reflecting on a personal learning or personal growth), or developing a commonplace, concrete occasion as the basis for the reflection • **W-8-14.3.** *[Not assessed at this grade level]* • **W-8-14.4.** Using a range of elaboration techniques (i.e., questioning, comparing, connecting, interpreting, analyzing, or describing) to establish a focus • **W-8-14.5.** Providing closure – leaving the reader with something to think about	
Informational Writing	
W-6. Reports, Procedures, or Persuasive Writing—Organizing Information	
W-8-6. In informational writing, students organize ideas/ concepts by… • **W-8-6.1.** Using an organizational text structure appropriate to focus/controlling idea EXAMPLES (of text structures): sequence, chronology, proposition/support, compare/contrast, problem/solution, cause/effect, investigation • **W-8-6.2.** Selecting appropriate information to set context, which may include a lead/hook • **W-8-6.3.** Using transitional words or phrases appropriate to organizational text structure • **W-8-6.4.** Drawing a conclusion by synthesizing information EXAMPLES: in reports and persuasive – something discovered/new insights (aha!) or stating the significance (so what?); in procedures – conclusion advances readers' knowledge • **W-8-6.5.** Listing and citing sources	
W-7. Reports, Procedures, or Persuasive Writing—Conveying Information	
W-8-7. In informational writing, students effectively convey purpose by… • **W-8-7.1.** Establishing a topic • **W-8-7.2.** Stating and maintaining a focus/controlling idea/thesis • **W-8-7.3.** Writing with a sense of audience, when appropriate • **W-8-7.4.** Establishing an authoritative voice • **W-8-7.5.** *[Not assessed at this grade level]*	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
W-8. Reports, Procedures, or Persuasive Writing—Using Elaboration Strategies	
W-8-8. In informational writing, students demonstrate use of a range of elaboration strategies by… • **W-8-8.1.** Including facts and details relevant to focus/ controlling idea, and excluding extraneous information • **W-8-8.2.** Including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, use of visual images • **W-8-8.3.** Addressing readers' concerns (including counterarguments – in persuasive writing; addressing potential problems – in procedures; providing context – in reports) • **W-8-8.4.** Commenting on the significance of the information, when appropriate	
Writing Conventions	
W-9. Applying Rules of Grammar, Usage, and Mechanics	
W-8-9. In independent writing, students demonstrate command of appropriate English conventions by… • **W-8-9.1.** Applying rules of standard English usage to correct grammatical errors EXAMPLES: subject-verb agreement, pronoun-antecedent, consistency of verb tense, case of pronouns • **W-8-9.2.** Applying capitalization rules • **W-8-9.3.** *[Subsumed in W-8-9.4]* • **W-8-9.4.** Applying appropriate punctuation to various sentence patterns to enhance meaning EXAMPLES: hyphens, dashes, parentheses • **W-8-9.5.** Applying conventional and word-derivative spelling patterns/rules EXAMPLES: identifying relationships among roots and common pre/suffixes, including foreign derivation	**Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence **Conventions of Usage:** Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*)

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
	Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of* **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons
Oral Communication Strategies	
OC-1. Interactive Listening	
OC-8-1. In oral communication, students demonstrate interactive listening by… • **OC-8-1.1.** Following verbal instructions to perform specific tasks, to answer questions, or to solve problems • **OC-8-1.2.** Summarizing, paraphrasing, questioning, or contributing to information presented • **OC-8-1.3.** *[Not assessed at this grade level]* • **OC-8-1.4.** Participating in large and small group discussions showing respect for a range of individual ideas • **OC-8-1.5.** Reaching consensus to solve a problem, make a decision, or achieve a goal	

TABLE 1A

RHODE ISLAND Grade 8 Language Arts Grade-Level/-Span Expectations	EXPLORE English College Readiness Standards
Written and Oral Communication	
OC-2. Make Oral Presentations	
OC-8-2. In oral communication, students make oral presentations by… • **OC-8-2.1.** Exhibiting logical organization and language use, appropriate to audience, context, and purpose • **OC-8-2.2.** Maintaining a consistent focus • **OC-8-2.3.** Including smooth transitions, supporting thesis with well-chosen details, and providing a coherent conclusion EXAMPLES (of support and elaboration): Using illustrations, visuals, detailed descriptions, restatements, paraphrases, examples, comparisons, artifacts • **OC-8-2.4.** Effectively responding to audience questions and feedback • **OC-8-2.5.** Using a variety of strategies of address (e.g., eye contact, speaking rate, volume, articulation, inflection, intonation, rhythm, and gesture) to communicate ideas effectively • **OC-8-2.6.** *[Not assessed at this grade level]*	

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
Early Reading Strategies	
R-9. Phonological Awareness	
[No GLE at this grade level]	
R-10. Concepts of Print	
[No GLE at this grade level]	
Reading Fluency and Accuracy	
R-11. Reading Fluency and Accuracy	
R-10-11. Reads grade-level appropriate material with: • **R-10-11.1.** Accuracy: reading material appropriate for high school with at least 90–94% accuracy • **R-10-11.2.** Fluency: reading with appropriate silent and oral reading fluency rates determined by text demands, and purpose for reading • **R-10-11.3.** Fluency: reading familiar text with phrasing and expression, and with attention to text features such as punctuation, italics, and dialogue	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Sequential, Comparative, and Cause-Effect Relationships: Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Identify clear relationships between characters, ideas, and so on in more challenging literary narratives Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages Order sequences of events in more challenging passages Understand the dynamics between people, ideas, and so on in more challenging passages Understand implied or subtly stated cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
Word Identification Skills and Strategies	
R-1. Word Identification and Decoding Strategies	
R-10-1. Applies word identification/decoding strategies by… • **R-10-1.1.** Identifying multisyllabic words by using knowledge of sounds, syllable division, and word patterns **R-10-1.2–R-10-1.6.** *[No GLE at this grade level]*	
Vocabulary	
R-2. Vocabulary Strategies	
R-10-2. Students identify the meaning of unfamiliar vocabulary by… • **R-10-2.1a.** Using strategies to unlock meaning (e.g., knowledge of word structure including prefixes/suffixes, common roots, or word origins; or context clues; or resources including dictionaries, glossaries, or thesauruses to determine definition, pronunciation, etymology, or usage of words; or prior knowledge) [S] • **R-10-2.1b.** Using strategies to unlock meaning including base words, general and specialized print or electronic resources to determine definition, pronunciation, etymology, or usage of words; or prior knowledge	**Meanings of Words:** Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
R-3. Breadth of Vocabulary	
R-10-3. Shows breadth of vocabulary knowledge through demonstrating understanding of word meanings and relationships by… • **R-10-3.1.** Identifying synonyms, antonyms, homonyms/ homophones, shades of meaning, analogies, idioms, or word origins, including words from dialects or other languages that have been adopted into our language/ standard English [S] • **R-10-3.2.** Selecting appropriate words or explaining the use of words in context, including connotation or denotation, shades of meanings of words/nuances, or idioms; or use of content-specific vocabulary, words with multiple meanings, precise language, or technical vocabulary [S] EXAMPLE: Students might be asked to explain the meaning of terminology appropriate to the content of the subject area as used in a text passage	**Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts
Literary Texts	
R-4. Initial Understanding of Literary Texts	
R-10-4. Demonstrate initial understanding of elements literary texts by… • **R-10-4.1.** Identifying, describing, or making logical predictions about character (such as protagonist or antagonist), setting, problem/solution, or plots/subplots, as appropriate to text; or identifying any significant changes in character, relationships, setting over time; or identifying rising action, climax, or falling action [S] • **R-10-4.2.** Paraphrasing or summarizing key ideas/plot, with major events sequenced, as appropriate to text [S] • **R-10-4.3.** Generating questions before, during, and after reading to enhance/expand understanding and/or gain new information • **R-10-4.4.** Identifying the characteristics of a variety of types/genres of literary text (e.g., literary texts: poetry, plays, fairytales, fantasy, fables, realistic fiction, folktales, historical fiction, mysteries, science fiction, legends, myths, short stories, epics, novels, dramatic presentations, comedies, tragedies, satires, parodies, memoirs, epistles) • **R-10-4.5.** Identify literary devices as appropriate to genre (e.g., similes, metaphors, alliteration, rhyme scheme, onomatopoeia, imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, allusion, diction, syntax, bias, or point of view)	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Make simple inferences about how details are used in passages
	Locate important details in more challenging passages
	Locate and interpret minor or subtly stated details in uncomplicated passages
	Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages
	Locate and interpret minor or subtly stated details in more challenging passages
	Sequential, Comparative, and Cause-Effect Relationships:
	Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Order sequences of events in more challenging passages
	Understand the dynamics between people, ideas, and so on in more challenging passages
	Understand implied or subtly stated cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
R-5, R-6. Analysis and Interpretation of Literary Text, Citing Evidence	
R-10-5. Analyze and interpret elements of literary texts, citing evidence where appropriate by… • **R-10-5.1.** Explaining and supporting logical predictions or logical outcomes (e.g., drawing conclusions based on interactions between characters or evolving plot) [S] • **R-10-5.2.** Examining characterization (e.g., stereotype, antagonist, protagonist), motivation, or interactions (including relationships), citing thoughts, words, or actions that reveal character traits, motivations, or changes over time [S] • **R-10-5.3.** Making inferences about cause/effect, internal or external conflicts (e.g., person versus self, person versus person, person versus nature/society/fate), or the relationship among elements within text (e.g., describing the interaction among plot/subplots) [S] • **R-10-5.4.** Explaining how the narrator's point of view or author's style is evident and affects the reader's interpretation [S] EXAMPLE: If this story were told from another character's point of view, how would the reader's interpretation be different? • **R-10-5.5.** Explaining how the author's purpose (e.g., entertain, inform or persuade), message or theme (which may include universal themes) is supported within the text [S]	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
• **R-10-5.6.** *[Subsumed under R-10-5.2 and R-10-5.3]*	Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Order simple sequences of events in uncomplicated literary narratives Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages Identify clear relationships between characters, ideas, and so on in more challenging literary narratives Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages Order sequences of events in more challenging passages Understand the dynamics between people, ideas, and so on in more challenging passages Understand implied or subtly stated cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
R-10-6. Analyze and interpret author's craft, citing evidence where appropriate by… • **R-10-6.1.** Demonstrating knowledge of author's style or use of literary elements and devices (i.e., imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, analogy, allusion, diction, syntax, use of punctuation) to analyze literary works [S]	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
R-16. Generates a Personal Response	
R-10-16. Generates a personal response to what is read through a variety of means… • **R-10-16.1.** Comparing stories or other texts to related personal experience, prior knowledge, or to other books • **R-10-16.2.** Providing relevant details to support the connections made or judgments (interpretive, analytical, evaluative, or reflective)	
Informational Texts	
R-7. Initial Understanding of Informational Text	
R-10-7. Demonstrate initial understanding of informational texts (expository and practical texts) by… • **R-10-7.1.** Obtaining information from text features [e.g., table of contents, glossary, index, transition words/ phrases, transitional devices (including use of white space), bold or italicized headings, subheadings, graphic organizers, charts, graphs, or illustrations] [S] • **R-10-7.2.** Using information from the text to answer questions; to state the main/central ideas; to provide supporting details; to explain visual components supporting the text; or, to interpret maps, charts, timelines, tables, or diagrams [S] • **R-10-7.3.** Organizing information to show understanding or relationships among facts, ideas, and events (e.g., representing main/central ideas or details within text through charting, mapping, paraphrasing, summarizing, comparing/contrasting, outlining) [S] • **R-10-7.4.** Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information • **R-10-7.5.** Identifying the characteristics of a variety of types of text (e.g., reference, public documents [drivers' manuals] and discourse, essays [including literary criticisms], articles, technical manuals, editorials/ commentaries, primary source documents, periodicals, job-related materials, speeches, on-line reading, documentaries; and practical/functional)	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Order sequences of events in more challenging passages
	Understand the dynamics between people, ideas, and so on in more challenging passages
	Understand implied or subtly stated cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
	Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts
	Generalizations and Conclusions:
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw simple generalizations and conclusions using details that support the main points of more challenging passages
	Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
	Draw generalizations and conclusions about people, ideas, and so on in more challenging passages
	Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
R-8. Analysis and Interpretation of Informational Text, Citing Evidence	
R-10-8. Analyze and interpret informational text, citing evidence as appropriate by… • **R-10-8.1.** Explaining connections about information within a text, across texts, or to related ideas [S] EXAMPLE: Students are asked to compare information presented in two textual excerpts. • **R-10-8.2.** Synthesizing and evaluating information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas) [S] EXAMPLE: How does the title of the article reflect the author's perspective? • **R-10-8.3.** Drawing inferences about text, including author's purpose (e.g., to inform, explain, entertain, persuade) or message; or explaining how purpose may affect the interpretation of the text; or using supporting evidence to form or evaluate opinions/judgments and assertions about central ideas that are relevant [S] • **R-10-8.4.** Distinguishing fact from opinion, and evaluating possible bias/propaganda or conflicting information within or across texts [S] • **R-10-8.5.** Making inferences about causes and/or effects [S] • **R-10-8.6.** Evaluating the clarity and accuracy of information (e.g. consistency, effectiveness of organizational pattern, or logic of arguments) [S]	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages Order sequences of events in more challenging passages Understand the dynamics between people, ideas, and so on in more challenging passages Understand implied or subtly stated cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
Reading Strategies	
R-12. Strategies for Monitoring and Adjusting Reading	
R-10-12. Demonstrates ability to monitor comprehension and strategy use for different types of texts and purposes by… • **R-10-12.1.** Using a range of self-monitoring and self-correction approaches (e.g., rereading, adjusting rate, sub-vocalizing, consulting resources, questioning, using flexible note taking/mapping systems, skimming, scanning)	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
R-13. Reading Comprehension Strategies	
R-10-13. Uses Comprehension strategies flexibly and as needed) before, during, and after reading literary and informational text. EXAMPLES of reading comprehension strategies might include: using prior knowledge; summarizing; predicting and making text based inferences; determining importance; generating literal, clarifying, inferential, analysis, synthesis, and evaluative questions; constructing sensory images (e.g., making pictures in one's mind); making connections (text to self, text to text, and text to world); taking notes; locating and using text discourse features and elements to support inferences and generalizations about information (e.g. vocabulary, text structure, evidence, format, use of language, arguments used); or using cues for text structures (e.g., chronological, cause/effect, compare/contrast, proposition and support, description, classification, logical/sequential)	
Breadth of Reading	
R-14. Reading Widely and Extensively	
R-10-14. Demonstrates the habit of reading widely and extensively by… • **R-10-14.1.** Reading with frequency, including in-school, out-of-school, and summer reading • **R-10-14.2.** Reading from a wide range of genres/kinds of text, including primary and secondary sources, and a variety of authors (e.g., literary, informational, and practical/functional texts) • **R-10-14.3.** Reading multiple texts for depth of understanding an author, subject, theme, or genre	
R-17. Participating in Literate Community	
R-10-17. Demonstrates participation in a literate community by… • **R-10-17.1.** Self-selecting reading materials in line with reading ability and personal interests • **R-10-17.2.** Participating in in-depth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN Reading College Readiness Standards
Reading	
R-15. Reading for Research Across Content Areas	
R-10-15. Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by… • **R-10-15.1.** Identifying and evaluating potential sources of information • **R-10-15.2.** Evaluating and selecting the information presented, in terms of completeness, relevance, and validity • **R-10-15.3.** Organizing, analyzing, and interpreting the information • **R-10-15.4.** Drawing conclusions/judgments and supporting them with evidence	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
Habit of Writing	
W-10. Writing Process	
W-10-10. Students use a recursive process, including pre-writing, drafting, revising, editing, and critiquing to produce final drafts of written products.	**Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement Apply an awareness of the focus and purpose of a fairly involved essay to determine the rhetorical effect and suitability of an existing phrase or sentence, or to determine the need to delete plausible but irrelevant material Add a sentence to accomplish a subtle rhetorical purpose such as to emphasize, to add supporting detail, or to express meaning through connotation **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements Revise vague nouns and pronouns that create obvious logic problems

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
	Delete obviously synonymous and wordy material in a sentence
	Revise expressions that deviate from the style of an essay
	Delete redundant material when information is repeated in different parts of speech (e.g., “alarmingly startled”)
	Use the word or phrase most consistent with the style and tone of a fairly straightforward essay
	Determine the clearest and most logical conjunction to link clauses
	Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence
	Identify and correct ambiguous pronoun references
	Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
	Sentence Structure and Formation:
	Use conjunctions or punctuation to join simple clauses
	Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences
	Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences
	Decide the appropriate verb tense and voice by considering the meaning of the entire sentence
	Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers)
	Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems
	Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence
	Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs
	Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole
	Conventions of Usage:
	Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives
	Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
	Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead*
	Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*)
	Ensure that a verb agrees with its subject when there is some text between the two
	Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences
	Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*
	Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom*
	Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun)
	Conventions of Punctuation:
	Delete commas that create basic sense problems (e.g., between verb and direct object)
	Provide appropriate punctuation in straightforward situations (e.g., items in a series)
	Delete commas that disturb the sentence flow (e.g., between modifier and modified element)
	Use commas to set off simple parenthetical phrases
	Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause)
	Use punctuation to set off complex parenthetical phrases
	Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*)
	Use apostrophes to indicate simple possessive nouns
	Recognize inappropriate uses of colons and semicolons
	Use commas to set off a nonessential/nonrestrictive appositive or clause

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
W-11. Writing Extensively	
W-10-11. Demonstrates the habit of writing extensively by… • **W-10-11.1.** Writing with frequency, including in-school, out-of-school, and during the summer • **W-10-11.2.** Sharing thoughts, observations, or impressions • **W-10-11.3.** Generating topics for writing EXAMPLES: Journal writing, free writes, poetry, quick writes, scientific observations, learning logs, readers'/writers' notebook, letters and personal notes, reading response journals, sketch journals/cartooning, songs, lyrics, reflective writing, short plays • **W-10-11.4.** Writing in a variety of genres	
Structures of Language	
W-1. Applying Understanding of Sentences, Paragraphs, and Text Structures	
W-10-1. Students demonstrate command of the structures of sentences, paragraphs, and text by… • **W-10-1.1.** Using varied sentence length and structure to enhance meaning (e.g., including phrases and clauses) [S] • **W-10-1.2.** Using paragraph structures appropriately (e.g., block or indented format • **W-10-1.3.** Recognizing organizational structures within paragraphs or within texts [S] EXAMPLES (of text structures): description, sequence, chronology, proposition/support, compare/contrast, problem/solution, cause/effect, investigation, deductive/inductive • **W-10-1.4.** Applying a format and text structure appropriate to purpose, audience, and context [S] • **W-10-1.5.** *[Subsumed in W-10-1.1]* • **W-10-1.6.** Applying directionality as appropriate to text	**Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward
Reading-Writing Connection	
W-2. Writing in Response to Literary or Informational Text—Showing Understanding of Ideas in Text	
W-10-2. In response to literary or informational text, students show understanding of plot/ideas/concepts by… • **W-10-2.1.** Selecting and summarizing key ideas to set context, appropriate to audience [S] • **W-10-2.2.** *[Subsumed in W-10-2.1]* • **W-10-2.3.** Connecting what has been read (plot/ideas/concepts) to prior knowledge, other texts, or the broader world of ideas, by referring to and explaining relevant ideas or themes [S] • **W-10-2.4.** *[Not assessed at this grade level]*	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
W-3. Writing in Response to Literary or Informational Text—Making Analytical Judgments about Text	
W-10-3. In response to literary or informational text, students make and support analytical judgments about text by… • **W-10-3.1a.** Establishing an interpretive claim/assertion in the form of a thesis (purpose), when responding to a given prompt [S] • **W-10-3.1b.** Establishing an interpretive claim/assertion in the form of a thesis (purpose) • **W-10-3.2.** Making inferences about the relationship(s) among content, events, characters, setting, theme, or author's craft [S] EXAMPLES: Making links to author's choice of words, style, bias, literary techniques, or point of view; making links to characteristics of literary forms or genres • **W-10-3.3.** Using specific details and references to text or relevant citations to support thesis, interpretations, or conclusions [S] • **W-10-3.4.** Organizing ideas, using transitional words/ phrases and drawing a conclusion by synthesizing information (e.g., demonstrate a connection to the broader world of ideas) [S]	
Expressive Writing	
W-4. Narratives—Creating a Story Line	
W-10-4. In written narratives, students organize and relate a story line/plot/series of events by… • **W-10-4.1.** Creating a clear and coherent (logically consistent) story line • **W-10-4.2.** Establishing context, character motivation, problem/conflict/challenge, and resolution, significance of setting, and maintaining point of view • **W-10-4.3.** Using a variety of effective transitional devices (e.g., ellipses; time transitions: such as flashback or foreshadowing; white space; or words/ phrases) to enhance meaning • **W-10-4.4.** Using a variety of effective literary devices (i.e., flashback or foreshadowing, figurative language imagery) to enhance meaning • **W-10-4.5.** Establishing and maintaining theme • **W-10-4.6.** Providing a sense of closure	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
W-5. Narratives—Applying Narrative Strategies	
W-10-5. Students demonstrate use of narrative strategies to engage the reader by… • **W-10-5.1.** Creating images, using relevant and descriptive details and sensory language to advance the plot/story line • **W-10-5.2.** Using dialogue to advance plot/story line • **W-10-5.3.** Developing characters through description, dialogue, actions, and relationships with other characters, when appropriate • **W-10-5.4.** Using voice appropriate to purpose • **W-10-5.5.** Maintaining focus • **W-10-5.6.** Selecting and elaborating important ideas; and excluding extraneous details • **W-10-5.7.** Controlling the pace of the story EXAMPLES: Intentional use of sentence length and punctuation	
W-12, W-13. Poetry	
W-10-12. In writing poetry, students demonstrate awareness of purpose by… • **W-10-12.1.** Writing poems in a variety of voices for a variety of audiences (purpose) • **W-10-12.2.** Writing poems that express speaker's moods, thoughts, or feelings • **W-10-12.3.** Choosing conventional or alternative text structures to achieve impact EXAMPLES (text structures): sonnet, free verse, haiku, ballad, ode, concrete poems	
W-10-13. In writing poetry, use language effectively by… • **W-10-13.1.** Selecting vocabulary according to purpose and for effect on audience • **W-10-13.2.** Using rhyme, rhythm, meter, literary elements (e.g., setting, plot, characters) or figurative language EXAMPLES (of figurative language): simile, personification, alliteration, onomatopoeia, metaphor • **W-10-13.3.** Selecting and manipulating words, phrases, or clauses, for connotation/shades of meaning and impact • **W-10-13.4.** Using a variety of poetic forms	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
W-14. Reflective Essay	
W-10-14. In reflective writing, students explore and share thoughts, observations, and impressions by… • **W-10-14.1.** Engaging the reader by establishing context (purpose) [S] • **W-10-14.2.** Analyzing a condition or situation of significance (e.g., reflecting on a personal learning or personal growth), or developing a commonplace, concrete occasion as the basis for the reflection [S] • **W-10-14.3.** Using an organizational structure that allows for a progression of ideas to develop [S] • **W-10-14.4.** Using a range of elaboration techniques (i.e., questioning, comparing, connecting, interpreting, analyzing, or describing) to establish a focus [S] • **W-10-14.5.** Providing closure - leaving the reader with something to think about [S] • **W-10-14.6.** *[Not assessed at this grade level]*	
Informational Writing	
W-6. Reports, Procedures, or Persuasive Writing—Organizing Information	
W-10-6. In informational writing, students organize ideas/ concepts by… • **W-10-6.1.** Using a text structure appropriate to focus/ controlling idea or thesis (e.g., purpose, audience, context) [S] EXAMPLES (of text structures): sequence (in procedures), chronology, proposition/support, compare/contrast, problem/ solution, cause/effect, investigation, deductive/inductive reasoning • **W-10-6.2.** Selecting appropriate and relevant information (excluding extraneous details) to set context [S] • **W-10-6.3.** Using transitional words or phrases appropriate to text structure [S] • **W-10-6.4a.** Drawing a conclusion by synthesizing information [S] EXAMPLES: in reports and persuasive – something discovered/new insights or stating the significance; in procedures – conclusion advances readers' knowledge • **W-10-6.4b.** Synthesizing information from multiple research studies, including primary sources • **W-10-6.5.** Listing and citing sources using standard format	

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TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
W-7. Reports, Procedures, or Persuasive Writing—Conveying Information	
W-10-7. In informational writing, students effectively convey purpose by… • **W-10-7.1.** Establishing a topic [S] • **W-10-7.2.** Stating and maintaining a focus/controlling idea/thesis [S] • **W-10-7.3.** Writing with a sense of audience, when appropriate [S] • **W-10-7.4.** Establishing an authoritative voice [S] • **W-10-7.5.** Using precise and descriptive language that clarifies and supports intent [S]	
W-8. Reports, Procedures, or Persuasive Writing—Using Elaboration Strategies	
W-10-8. In informational writing, students demonstrate use of a range of elaboration strategies by… • **W-10-8.1.** Including facts and details relevant to focus/controlling idea or thesis, and excluding extraneous information [S] • **W-10-8.2.** Including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, contrasting, or using visual images to support intended purpose [S] • **W-10-8.3.** Addressing readers' concerns (anticipating and addressing potential problems, mistakes, or misunderstandings that might arise for the audience) [S] • **W-10-8.4.** Commenting on the significance of the information (in reports, throughout the piece; in procedural or persuasive writing, as appropriate) [S]	
Writing Conventions	
W-9. Applying Rules of Grammar, Usage, and Mechanics	
W-10-9. In independent writing, students demonstrate command of appropriate English conventions by… • **W-10-9.1.** Applying rules of standard English usage to correct grammatical errors [S] EXAMPLES: subject-verb agreement, pronoun-antecedent, consistency of verb tense, case of pronouns • **W-10-9.2.** Applying capitalization rules • **W-10-9.3.** *[Subsumed in W-10-9.4]* • **W-10-9.4.** Applying appropriate punctuation to various sentence patterns to enhance meaning [S] EXAMPLES: hyphens, dashes, parentheses • **W-10-9.5.** Applying conventional and word-derivative spelling patterns/rules [S] EXAMPLES: identifying relationships among roots and common pre/suffixes, including foreign derivation	**Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
	Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence
	Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs
	Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole
	Conventions of Usage:
	Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives
	Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts
	Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead*
	Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*)
	Ensure that a verb agrees with its subject when there is some text between the two
	Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences
	Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*
	Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom*
	Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun)
	Conventions of Punctuation:
	Delete commas that create basic sense problems (e.g., between verb and direct object)
	Provide appropriate punctuation in straightforward situations (e.g., items in a series)
	Delete commas that disturb the sentence flow (e.g., between modifier and modified element)
	Use commas to set off simple parenthetical phrases
	Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause)
	Use punctuation to set off complex parenthetical phrases
	Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*)

[S] = State assessed; all others assessed locally

TABLE 1B

RHODE ISLAND Grade 10 Language Arts Grade-Level/-Span Expectations	PLAN English College Readiness Standards
Written and Oral Communication	
	Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons Use commas to set off a nonessential/nonrestrictive appositive or clause
Oral Communication Strategies	
OC-1. Interactive Listening	
OC-10-1. In oral communication, students demonstrate interactive listening by… • **OC-10-1.1.** Following verbal instructions, to perform specific tasks, to answer questions, or to solve problems • **OC-10-1.2.** Summarizing, paraphrasing, questioning, or contributing to information presented • **OC-10-1.3.** Identifying the thesis of a presentation, determining the essential elements of elaboration, and interpreting or evaluating the message • **OC-10-1.4.** Participating in large and small group discussions showing respect for a range of individual ideas • **OC-10-1.5.** Reaching consensus to solve a problem, make a decision, or achieve a goal	
OC-2. Make Oral Presentations	
OC-10-2. In oral communication, students make oral presentations by… • **OC-10-2.1.** Exhibiting logical organization and language use, appropriate to audience, context, and purpose • **OC-10-2.2.** Maintaining a consistent focus • **OC-10-2.3.** Including smooth transitions, supporting thesis with well-chosen details, and providing a coherent conclusion EXAMPLES (of support and elaboration): Using anecdotes, analogies, illustrations, visuals, detailed descriptions, restatements, paraphrases, examples, comparisons, artifacts • **OC-10-2.4.** Effectively responding to audience questions and feedback • **OC-10-2.5.** Using a variety of strategies of address (e.g., eye contact, speaking rate, volume, articulation, enunciation, pronunciation, inflection, voice modulation, intonation, rhythm, and gesture) to communicate ideas effectively • **OC-10-2.6.** Using tools of technology to enhance message	

[S] = State assessed; all others assessed locally

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
Early Reading Strategies	
R-9. Phonological Awareness	
[No GLE at this grade level]	
R-10. Concepts of Print	
[No GLE at this grade level]	
Reading Fluency and Accuracy	
R-11. Reading Fluency and Accuracy	
R-12-11. Reads grade-level appropriate material with: • **R-12-11.1.** Accuracy: reading material appropriate for high school with at least 90–94% accuracy • **R-12-11.2.** Fluency: reading with appropriate silent and oral reading fluency rates determined by text demands, and purpose for reading • **R-12-11.3.** Fluency: reading familiar text with phrasing and expression, and with attention to text features such as punctuation, italics, and dialogue	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Sequential, Comparative, and Cause-Effect Relationships:
	Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Order sequences of events in more challenging passages
	Understand the dynamics between people, ideas, and so on in more challenging passages
	Understand implied or subtly stated cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
	Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts
	Generalizations and Conclusions:
	Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
Word Identification Skills and Strategies	
R-1. Word Identification and Decoding Strategies	
R-12-1. Applies word identification/decoding strategies by… • **R-12-1.1.** Identifying multisyllabic words by using knowledge of sounds, syllable division, and word patterns **R-12-1.2–R-12-1.6.** *[No GLE at this grade level]*	
Vocabulary	
R-2. Vocabulary Strategies	
R-12-2. Students identify the meaning of unfamiliar vocabulary by… • **R-12-2.1a.** Using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes, common roots, or word origins; or context clues; or resources including dictionaries, glossaries, or thesauruses to determine definition, pronunciation, etymology, or usage of words; or prior knowledge) • **R-12-2.1b.** Using strategies to unlock meaning including base words, general and specialized print or electronic resources to determine definition, pronunciation, etymology, or usage of words; or prior knowledge	**Meanings of Words:** Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
R-3. Breadth of Vocabulary	
R-12-3. Shows breadth of vocabulary knowledge through demonstrating understanding of word meanings and relationships by… • **R-12-3.1.** Identifying synonyms, antonyms, homonyms/ homophones, shades of meaning, analogies, idioms, or word origins, including words from dialects or other languages that have been adopted into standard English • **R-12-3.2.** Selecting appropriate words or explaining the use of words in context, including connotation or denotation, shades of meanings of words/nuances, or idioms; or use of content-specific vocabulary, words with multiple meanings, precise language, or technical vocabulary	**Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts
Literary Texts	
R-4. Initial Understanding of Literary Texts	
R-12-4. Demonstrate initial understanding of elements of literary texts by… • **R-12-4.1.** Identifying, describing, or making logical predictions about character (such as protagonist or antagonist), setting, problem/solution, or plots/subplots, as appropriate to text; or identifying any significant changes in character, relationships, or setting over time; or identifying rising action, climax, or falling action • **R-12-4.2.** Paraphrasing or summarizing key ideas/plot, with major events sequenced, as appropriate to text • **R-12-4.3.** Generating questions before, during, and after reading to enhance/expand understanding and/or gain new information • **R-12-4.4.** Identifying the characteristics of a variety of types/genres of literary text (e.g., literary texts: poetry, plays, fairytales, fantasy, fables, realistic fiction, folktales, historical fiction, mysteries, science fiction, legends, myths, short stories, epics, novels, dramatic presentations, comedies, tragedies, satires, parodies, memoirs, epistles) • **R-12-4.5.** Identify literary devices as appropriate to genre (e.g., similes, metaphors, alliteration, rhyme scheme, onomatopoeia, imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, allusion, diction, syntax, bias, or point of view)	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Make simple inferences about how details are used in passages
	Locate important details in more challenging passages
	Locate and interpret minor or subtly stated details in uncomplicated passages
	Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages
	Locate and interpret minor or subtly stated details in more challenging passages
	Sequential, Comparative, and Cause-Effect Relationships:
	Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Order sequences of events in more challenging passages
	Understand the dynamics between people, ideas, and so on in more challenging passages
	Understand implied or subtly stated cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
R-5, R-6. Analysis and Interpretation of Literary Text, Citing Evidence	
R-12-5. Analyze and interpret literary elements within or across texts, citing evidence where appropriate by… • **R-12-5.1.** Explaining and supporting logical predictions or logical outcomes (e.g., drawing conclusions based on interactions between characters or evolving plot) • **R-12-5.2.** Examining characterization (e.g., stereotype, antagonist, protagonist), motivation, or interactions (including relationships), citing thoughts, words, or actions that reveal character traits, motivations, or changes over time • **R-12-5.3.** Making inferences about cause/effect, internal or external conflicts (e.g., person versus self, person versus person, person versus nature/society/fate), or the relationship among elements within text(s) (e.g., describing the interaction among plot/subplots, theme/ setting, symbolism/characterization) • **R-12-5.4.** Explaining how the narrator's point of view, or author's style, or tone is evident and affects the reader's interpretation or is supported throughout the text(s) • **R-12-5.5.** Explaining how the author's purpose (e.g., to entertain, inform or persuade), message or theme (which may include universal themes) is supported within the text(s) • **R-12-5.6.** *[Subsumed under R-12-5.2 and R-12-5.3]*	**Main Ideas and Author's Approach:** Recognize a clear intent of an author or narrator in uncomplicated literary narratives Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Supporting Details:
	Locate basic facts (e.g., names, dates, events) clearly stated in a passage
	Locate simple details at the sentence and paragraph level in uncomplicated passages
	Recognize a clear function of a part of an uncomplicated passage
	Locate important details in uncomplicated passages
	Make simple inferences about how details are used in passages
	Locate important details in more challenging passages
	Locate and interpret minor or subtly stated details in uncomplicated passages
	Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages
	Locate and interpret minor or subtly stated details in more challenging passages
	Sequential, Comparative, and Cause-Effect Relationships:
	Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify relationships between main characters in uncomplicated literary narratives
	Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives
	Order simple sequences of events in uncomplicated literary narratives
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Identify clear relationships between characters, ideas, and so on in more challenging literary narratives
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Order sequences of events in more challenging passages
	Understand the dynamics between people, ideas, and so on in more challenging passages
	Understand implied or subtly stated cause-effect relationships in more challenging passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Meanings of Words: Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about the main characters in uncomplicated literary narratives Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
R-12-6. Analyze and interpret author's craft within or across texts, citing evidence where appropriate by… • **R-12-6.1a.** Demonstrating knowledge of author's style or use of literary elements and devices (e.g., simile, metaphor, point of view, imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, analogy, allusion, diction, syntax, genre, or bias, or use of punctuation) to analyze literary works • **R-12-6.1b.** Examining author's style or use of literary devices to convey theme	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages **Supporting Details:** Recognize a clear function of a part of an uncomplicated passage Make simple inferences about how details are used in passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
R-16. Generates a Personal Response	
R-12-16. Generates a personal response to what is read through a variety of means… • **R-12-16.1.** Comparing stories or other texts to related personal experience, prior knowledge, or to other books • **R-12-16.2.** Providing relevant details to support the connections made or judgments (interpretive, analytical, evaluative, or reflective)	
Informational Texts	
R-7. Initial Understanding of Informational Text	
R-12-7. Demonstrate initial understanding of informational texts (expository and practical texts) by… • **R-12-7.1.** Obtaining information from text features [e.g., table of contents, glossary, index, transition words/ phrases, transitional devices (including use of white space), bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations] • **R-12-7.2.** Using information from the text to answer questions, perform specific tasks, or solve problems; to state the main/central ideas; to provide supporting details; to explain visual components supporting the text; or to interpret maps, charts, timelines, tables, or diagrams • **R-12-7.3.** Organizing information to show understanding or relationships among facts, ideas, and events (e.g., representing main/central ideas or details within text through charting (including flowcharts), mapping, paraphrasing, summarizing, comparing/contrasting, outlining, or connecting information with related ideas) • **R-12-7.4.** Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information • **R-12-7.5.** Identifying the characteristics of a variety of types of text (e.g., reference, public documents [drivers' manuals] and discourse, essays [including literary criticisms], articles, technical manuals, editorials/ commentaries, primary source documents, periodicals, job-related materials, speeches, on-line reading, documentaries; and practical/functional)	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Recognize clear cause-effect relationships described within a single sentence in a passage
	Identify clear relationships between people, ideas, and so on in uncomplicated passages
	Identify clear cause-effect relationships in uncomplicated passages
	Order sequences of events in uncomplicated passages
	Understand relationships between people, ideas, and so on in uncomplicated passages
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages
	Identify clear cause-effect relationships in more challenging passages
	Order sequences of events in more challenging passages
	Understand the dynamics between people, ideas, and so on in more challenging passages
	Understand implied or subtly stated cause-effect relationships in more challenging passages
	Meanings of Words:
	Understand the implication of a familiar word or phrase and of simple descriptive language
	Use context to understand basic figurative language
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages
	Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages
	Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages
	Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts
	Generalizations and Conclusions:
	Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages
	Draw simple generalizations and conclusions using details that support the main points of more challenging passages
	Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives
	Draw generalizations and conclusions about people, ideas, and so on in more challenging passages
	Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
R-8. Analysis and Interpretation of Informational Text, Citing Evidence	
R-12-8. Analyze and interpret informational text (which may include technical writing), citing evidence as appropriate by… • **R-12-8.1.** Explaining connections among ideas across multiple texts • **R-12-8.2.** Synthesizing and evaluating information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas) • **R-12-8.3.** Drawing inferences about text, including author's purpose (e.g., to inform, explain, entertain, persuade) or message; or explaining how purpose may affect the interpretation of the text; or using supporting evidence to form or evaluate opinions/judgments and assertions about central ideas that are relevant • **R-12-8.4.** Critiquing author's use of strategies to achieve intended purpose or message (e.g., to inform, explain, entertain, persuade) EXAMPLE (critique public documents): May include analysis of using anecdotes, addressing counterclaims, appealing to audience, using emotionally-laden language EXAMPLE (critique functional documents): May include visual appeal, logical sequences, awareness of possible reader misunderstanding • **R-12-8.5.** Making inferences about causes and effects • **R-12-8.6.** Evaluating the clarity and accuracy of information (e.g. consistency, effectiveness of organizational pattern, or logic of arguments)	**Main Ideas and Author's Approach:** Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages Identify a clear main idea or purpose of any paragraph or paragraphs in uncomplicated passages Infer the main idea or purpose of straightforward paragraphs in more challenging passages Summarize basic events and ideas in more challenging passages Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in more challenging passages Infer the main idea or purpose of more challenging passages or their paragraphs **Supporting Details:** Locate basic facts (e.g., names, dates, events) clearly stated in a passage Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Locate important details in uncomplicated passages Make simple inferences about how details are used in passages Locate important details in more challenging passages Locate and interpret minor or subtly stated details in uncomplicated passages Discern which details, though they may appear in different sections throughout a passage, support important points in more challenging passages Locate and interpret minor or subtly stated details in more challenging passages **Sequential, Comparative, and Cause-Effect Relationships:** Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages Recognize clear cause-effect relationships described within a single sentence in a passage Identify clear relationships between people, ideas, and so on in uncomplicated passages Identify clear cause-effect relationships in uncomplicated passages Order sequences of events in uncomplicated passages Understand relationships between people, ideas, and so on in uncomplicated passages

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
	Understand implied or subtly stated cause-effect relationships in uncomplicated passages Identify clear cause-effect relationships in more challenging passages Order sequences of events in more challenging passages Understand the dynamics between people, ideas, and so on in more challenging passages Understand implied or subtly stated cause-effect relationships in more challenging passages **Meanings of Words:** Understand the implication of a familiar word or phrase and of simple descriptive language Use context to understand basic figurative language Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages Use context to determine the appropriate meaning of virtually any word, phrase, or statement in uncomplicated passages Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in more challenging passages Determine the appropriate meaning of words, phrases, or statements from figurative or somewhat technical contexts **Generalizations and Conclusions:** Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages Draw simple generalizations and conclusions using details that support the main points of more challenging passages Draw subtle generalizations and conclusions about characters, ideas, and so on in uncomplicated literary narratives Draw generalizations and conclusions about people, ideas, and so on in more challenging passages Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about people, ideas, and so on
Reading Strategies	
R-12. Strategies for Monitoring and Adjusting Reading	
R-12-12. Demonstrates ability to monitor comprehension and strategy use for different types of texts and purposes by… • **R-12-12.1.** Using a range of self-monitoring and self-correction approaches (e.g., rereading, adjusting rate, sub-vocalizing, consulting resources, questioning, using flexible note taking/mapping systems, skimming, scanning)	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
R-13. Reading Comprehension Strategies	
R-12-13. Uses Comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text. EXAMPLES of reading comprehension strategies might include: using prior knowledge; summarizing; predicting and making text based inferences; determining importance; generating literal, clarifying, inferential, analysis, synthesis, and evaluative questions; constructing sensory images (e.g., making pictures in one's mind); making connections (text to self , text to text, and text to world); taking notes; locating and using text discourse features and elements to support inferences and generalizations about information (e.g. vocabulary, text structure, evidence, format, use of language, arguments used); or using cues for text structures (e.g., chronological, cause/effect, compare/contrast, proposition and support, description, classification, logical/sequential)	
Breadth of Reading	
R-14. Reading Widely and Extensively	
R-12-14. Demonstrates the habit of reading widely and extensively by… • **R-12-14.1.** Reading with frequency, including in-school, out-of-school, and summer reading • **R-12-14.2.** Reading from a wide range of genres/kinds of text, including primary and secondary sources, and a variety of authors (e.g., literary, informational, and practical/functional texts) • **R-12-14.3.** Reading multiple texts for depth of understanding an author, subject, theme, or genre	
R-17. Participating in Literate Community	
R-12-17. Demonstrates participation in a literate community by… • **R-12-17.1.** Self-selecting reading materials in line with reading ability and personal interests • **R-12-17.2.** Participating in in-depth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT Reading College Readiness Standards
Reading	
R-15. Reading for Research Across Content Areas	
R-12-15. Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by… • **R-12-15.1.** Identifying and evaluating potential sources of information • **R-12-15.2.** Evaluating and selecting the information presented, in terms of completeness, relevance, and validity • **R-12-15.3.** Organizing, analyzing, and interpreting the information • **R-12-15.4.** Drawing conclusions/judgments and supporting them with evidence	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
Habit of Writing	
W-10. Writing Process	
W-12-10. Students use a recursive process, including pre-writing, drafting, revising, editing, and critiquing to produce final drafts of written products.	**English** College Readiness Standards **Topic Development in Terms of Purpose and Focus:** Identify the basic purpose or role of a specified phrase or sentence Delete a clause or sentence because it is obviously irrelevant to the essay Identify the central idea or main topic of a straightforward piece of writing Determine relevancy when presented with a variety of sentence-level details Identify the focus of a simple essay, applying that knowledge to add a sentence that sharpens that focus or to determine if an essay has met a specified goal Delete material primarily because it disturbs the flow and development of the paragraph Add a sentence to accomplish a fairly straightforward purpose such as illustrating a given statement Apply an awareness of the focus and purpose of a fairly involved essay to determine the rhetorical effect and suitability of an existing phrase or sentence, or to determine the need to delete plausible but irrelevant material Add a sentence to accomplish a subtle rhetorical purpose such as to emphasize, to add supporting detail, or to express meaning through connotation **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Word Choice in Terms of Style, Tone, Clarity, and Economy:** Revise sentences to correct awkward and confusing arrangements of sentence elements

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
	Revise vague nouns and pronouns that create obvious logic problems
	Delete obviously synonymous and wordy material in a sentence
	Revise expressions that deviate from the style of an essay
	Delete redundant material when information is repeated in different parts of speech (e.g., “alarmingly startled”)
	Use the word or phrase most consistent with the style and tone of a fairly straightforward essay
	Determine the clearest and most logical conjunction to link clauses
	Revise a phrase that is redundant in terms of the meaning and logic of the entire sentence
	Identify and correct ambiguous pronoun references
	Use the word or phrase most appropriate in terms of the content of the sentence and tone of the essay
	Sentence Structure and Formation:
	Use conjunctions or punctuation to join simple clauses
	Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences
	Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences
	Decide the appropriate verb tense and voice by considering the meaning of the entire sentence
	Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers)
	Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems
	Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence
	Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs
	Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole
	Conventions of Usage:
	Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives
	Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
	Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead*
	Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*)
	Ensure that a verb agrees with its subject when there is some text between the two
	Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences
	Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of*
	Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom*
	Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun)
	Conventions of Punctuation:
	Delete commas that create basic sense problems (e.g., between verb and direct object)
	Provide appropriate punctuation in straightforward situations (e.g., items in a series)
	Delete commas that disturb the sentence flow (e.g., between modifier and modified element)
	Use commas to set off simple parenthetical phrases
	Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause)
	Use punctuation to set off complex parenthetical phrases
	Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*)
	Use apostrophes to indicate simple possessive nouns
	Recognize inappropriate uses of colons and semicolons
	Use commas to set off a nonessential/nonrestrictive appositive or clause

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
W-11. Writing Extensively	
W-12-11. Demonstrates the habit of writing extensively by… • **W-12-11.1.** Writing with frequency, including in-school, out-of-school, and during the summer • **W-12-11.2.** Sharing thoughts, observations, or impressions • **W-12-11.3.** Generating topics for writing EXAMPLES: Journal writing, free writes, poetry, quick writes, scientific observations, learning logs, readers'/writers' notebook, letters and personal notes, reading response journals, sketch journals/cartooning, songs, lyrics, reflective writing, short plays • **W-12-11.4.** Writing in a variety of genres	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
Structures of Language	
W-1. Applying Understanding of Sentences, Paragraphs, and Text Structures	
W-12-1. Students demonstrate command of the structures of sentences, paragraphs, and text by… • **W-12-1.1.** Using varied sentence length and structure to enhance meaning (e.g., including phrases, clauses, and parallel structure) • **W-12-1.2.** Using paragraph structures appropriately (e.g., block or indented format) • **W-12-1.3.** Recognizing organizational structures within paragraphs or within texts EXAMPLES (of text structures): description, sequence, chronology, proposition/support, compare/contrast, problem/solution, cause/effect, investigation, deductive/inductive • **W-12-1.4.** Applying a format and text structure appropriate to purpose, audience, and context EXAMPLES (of formats): academic essay, extended research essay, critical analysis • **W-12-1.5.** *[Subsumed in W-12-1.1]* • **W-12-1.6.** Applying directionality as appropriate to text	**English** College Readiness Standards **Organization, Unity, and Coherence:** Use conjunctive adverbs or phrases to show time relationships in simple narrative essays (e.g., *then*, *this time*) Select the most logical place to add a sentence in a paragraph Use conjunctive adverbs or phrases to express straightforward logical relationships (e.g., *first*, *afterward*, *in response*) Decide the most logical place to add a sentence in an essay Add a sentence that introduces a simple paragraph Determine the need for conjunctive adverbs or phrases to create subtle logical connections between sentences (e.g., *therefore*, *however*, *in addition*) Rearrange the sentences in a fairly uncomplicated paragraph for the sake of logic Add a sentence to introduce or conclude the essay or to provide a transition between paragraphs when the essay is fairly straightforward **Writing** College Readiness Standards **Developing a Position:** Show effective movement between general and specific ideas and examples **Organizing Ideas:** Provide unity and coherence throughout the essay, often with a logical progression of ideas **Using Language:** Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
Reading-Writing Connection	
W-2. Writing in Response to Literary or Informational Text—Showing Understanding of Ideas in Text	
W-12-2. In response to literary or informational text, students show understanding of plot/ideas/concepts within or across texts by… • **W-12-2.1.** Selecting and summarizing key ideas to set context, appropriate to audience • **W-12-2.2.** *[Subsumed in W-12-2.1]* • **W-12-2.3.** Connecting what has been read (plot/ideas/ concepts) to prior knowledge, other texts, or the broader world of ideas, by referring to and explaining relevant ideas, themes, motifs, or archetypes • **W-12-2.4.** Explaining the visual components (e.g., charts, diagrams, artwork) of the text, when appropriate	
W-3. Writing in Response to Literary or Informational Text—Making Analytical Judgments about Text	
W-12-3. In response to literary or informational text, students make and support analytical judgments about text by… • **W-12-3.1.** Establishing an interpretive claim/assertion in the form of a thesis (purpose) • **W-12-3.2.** Making inferences about the relationship(s) among content, events, characters, setting, theme, or author's craft EXAMPLES: Making links to author's choice of words, style, bias, literary techniques, or point of view; making links to characteristics of literary forms or genres • **W-12-3.3.** Using specific details and references to text or relevant citations to support thesis, interpretations, or conclusions • **W-12-3.4.** Organizing ideas, using transitional words/ phrases and drawing a conclusion by synthesizing information (e.g., demonstrate a connection to the broader world of ideas)	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
Expressive Writing	
W-4. Narratives—Creating a Story Line	
W-12-4. In written narratives, students organize and relate a story line/plot/series of events by… • **W-12-4.1.** Creating a clear and coherent, logically consistent structure EXAMPLES: Biographical or historical accounts, fiction or non-fiction stories, personal narratives, narrative poems or songs, parodies of particular narrative styles (fable, soap opera) • **W-12-4.2.** Establishing context, character motivation, problem/conflict/challenge, and resolution, significance of setting, and maintaining point of view • **W-12-4.3.** Using a variety of effective transitional devices (e.g., ellipses; time transitions: such as flashback or foreshadowing; white space; or words/ phrases) to enhance meaning • **W-12-4.4.** Using a variety of effective literary devices (i.e., flashback or foreshadowing, figurative language imagery) to enhance meaning • **W-12-4.5.** Establishing and maintaining theme • **W-12-4.6.** Providing a sense of closure	
W-5. Narratives—Applying Narrative Strategies	
W-12-5. Students demonstrate use of narrative strategies to engage the reader by… • **W-12-5.1.** Creating images, using relevant and descriptive details and sensory language to advance the plot/story line • **W-12-5.2.** Using dialogue to advance plot/story line • **W-12-5.3.** Developing characters through description, dialogue, actions (including gestures, expressions), and relationships with other characters, when appropriate • **W-12-5.4.** Using voice appropriate to purpose • **W-12-5.5.** Maintaining focus • **W-12-5.6.** Selecting and elaborating important ideas; and excluding extraneous details • **W-12-5.7.** Controlling the pace of the story EXAMPLES: Developing tension or suspense	
W-12, W-13. Poetry	
W-12-12. In writing poetry, students demonstrate awareness of purpose by… • **W-12-12.1.** Writing poems in a variety of voices for a variety of audiences (purpose) • **W-12-12.2.** Writing poems that express speaker's moods, thoughts, or feelings • **W-12-12.3.** Choosing conventional or alternative text structures to achieve impact	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
W-12-13. In writing poetry, use language effectively by… • **W-12-13.1.** Selecting vocabulary according to purpose and for effect on audience • **W-12-13.2.** Using rhyme, rhythm, meter, literary elements (e.g., setting, plot, characters) or figurative language EXAMPLES (of figurative language): simile, personification, alliteration, onomatopoeia, metaphor • **W-12-13.3.** Selecting and manipulating words, phrases, or clauses, for connotation/shades of meaning and impact • **W-12-13.4.** Using a variety of poetic forms	
W-14. Reflective Essay	
W-12-14. In reflective writing, students explore and share thoughts, observations, and impressions by… • **W-12-14.1.** Engaging the reader by establishing context (purpose) • **W-12-14.2.** Analyzing a condition or situation of significance or developing a commonplace, concrete occasion as the basis for the reflection • **W-12-14.3.** Using an organizational structure that allows for a progression of ideas to develop • **W-12-14.4.** Using a range of elaboration techniques (i.e., questioning, comparing, connecting, interpreting, analyzing, or describing) to establish a focus • **W-12-14.5.** Providing closure - leaving the reader with something to think about • **W-12-14.6.** Making connections between personal ideas and experiences and more abstract aspects of life, leading to new perspectives or insights EXAMPLE: In a reflection upon a personal friendship, a student identifies a new insight about the relationship.	

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
Informational Writing	
W-6. Reports, Procedures, or Persuasive Writing—Organizing Information	
W-12-6. In informational writing, students organize ideas/concepts by… • **W-12-6.1.** Using a text structure appropriate to focus/controlling idea or thesis (e.g., purpose, audience, context) EXAMPLES (of text structures): sequence (in procedures), chronology, proposition/support, compare/contrast, problem/solution, cause/effect, investigation, deductive/inductive reasoning • **W-12-6.2.** Selecting appropriate and relevant information (excluding extraneous details) to set context • **W-12-6.3.** Using transitional words or phrases appropriate to text structure to enhance ideas • **W-12-6.4a.** Drawing a conclusion by synthesizing information • **W-12-6.4b.** Synthesizing information from multiple sources to draw conclusions beyond those found in any single source • **W-12-6.5.** Listing and citing sources using standard format	**Writing** College Readiness Standards **Expressing Judgments:** Show clear understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a critical context for discussion **Focusing on the Topic:** Maintain a clear focus on discussion of the specific topic and issue in the prompt throughout the essay Present a critical thesis that clearly establishes the focus on the writer's position on the issue **Developing a Position:** Show effective movement between general and specific ideas and examples **Organizing Ideas:** Use relevant transitional words, phrases, and sentences to convey logical relationships between ideas Present a well-developed introduction and conclusion
W-7. Reports, Procedures, or Persuasive Writing—Conveying Information	
W-12-7. In informational writing, students effectively convey purpose by… • **W-12-7.1.** Establishing a topic • **W-12-7.2.** Stating and maintaining a focus/controlling idea/thesis • **W-12-7.3.** Selecting and using formal, informal, literary, or technical language appropriate to audience and context • **W-12-7.4.** Establishing an authoritative voice • **W-12-7.5.** Using precise and descriptive language that clarifies and supports intent and enhances meaning	**Writing** College Readiness Standards **Focusing on the Topic:** Maintain a clear focus on discussion of the specific topic and issue in the prompt throughout the essay Present a critical thesis that clearly establishes the focus on the writer's position on the issue **Using Language:** Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
W-8. Reports, Procedures, or Persuasive Writing—Using Elaboration Strategies	
W-12-8. In informational writing, students demonstrate use of a range of elaboration strategies by… • **W-12-8.1.** Including facts and details relevant to focus/ controlling idea or thesis, and excluding extraneous information • **W-12-8.2.** Including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, contrasting, or using visual images to support intended purpose • **W-12-8.3.** Addressing readers' concerns (anticipating and addressing potential problems, mistakes, or misunderstandings that might arise for the audience) • **W-12-8.4.** Commenting on the significance of the information (in reports, throughout the piece; in procedural or persuasive writing, as appropriate)	**Writing** College Readiness Standards **Expressing Judgments:** Show clear understanding of the persuasive purpose of the task by taking a position on the specific issue in the prompt and offering a critical context for discussion Show understanding of the complexity of the issue in the prompt by • examining different perspectives, and/or • evaluating implications or complications of the issue, and/or • posing and fully discussing counterarguments to the writer's position **Developing a Position:** Develop several ideas fully, using specific and relevant reasons, details, and examples
Writing Conventions	
W-9. Applying Rules of Grammar, Usage, and Mechanics	
W-12-9. In independent writing, students demonstrate command of appropriate English conventions by… • **W-12-9.1.** Applying rules of standard English usage to correct grammatical errors EXAMPLES: subject-verb agreement, pronoun-antecedent, consistency of verb tense, case of pronouns • **W-12-9.2.** Applying capitalization rules • **W-12-9.3.** *[Subsumed in W-12-9.4]* • **W-12-9.4.** Applying appropriate punctuation to various sentence patterns to enhance meaning EXAMPLE: brackets • **W-12-9.5.** Applying conventional and word-derivative spelling patterns/rules EXAMPLES: identifying relationships among roots and common pre/suffixes, including foreign derivation	**English** College Readiness Standards **Sentence Structure and Formation:** Use conjunctions or punctuation to join simple clauses Revise shifts in verb tense between simple clauses in a sentence or between simple adjoining sentences Determine the need for punctuation and conjunctions to avoid awkward-sounding sentence fragments and fused sentences Decide the appropriate verb tense and voice by considering the meaning of the entire sentence Recognize and correct marked disturbances of sentence flow and structure (e.g., participial phrase fragments, missing or incorrect relative pronouns, dangling or misplaced modifiers) Revise to avoid faulty placement of phrases and faulty coordination and subordination of clauses in sentences with subtle structural problems Maintain consistent verb tense and pronoun person on the basis of the preceding clause or sentence Use sentence-combining techniques, effectively avoiding problematic comma splices, run-on sentences, and sentence fragments, especially in sentences containing compound subjects or verbs Maintain a consistent and logical use of verb tense and pronoun person on the basis of information in the paragraph or essay as a whole

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
	Conventions of Usage: Solve such basic grammatical problems as how to form the past and past participle of irregular but commonly used verbs and how to form comparative and superlative adjectives Solve such grammatical problems as whether to use an adverb or adjective form, how to ensure straightforward subject-verb and pronoun-antecedent agreement, and which preposition to use in simple contexts Recognize and use the appropriate word in frequently confused pairs such as *there* and *their*, *past* and *passed*, and *led* and *lead* Use idiomatically appropriate prepositions, especially in combination with verbs (e.g., *long for*, *appeal to*) Ensure that a verb agrees with its subject when there is some text between the two Ensure that a pronoun agrees with its antecedent when the two occur in separate clauses or sentences Identify the correct past and past participle forms of irregular and infrequently used verbs and form present-perfect verbs by using *have* rather than *of* Correctly use reflexive pronouns, the possessive pronouns *its* and *your*, and the relative pronouns *who* and *whom* Ensure that a verb agrees with its subject in unusual situations (e.g., when the subject-verb order is inverted or when the subject is an indefinite pronoun) **Conventions of Punctuation:** Delete commas that create basic sense problems (e.g., between verb and direct object) Provide appropriate punctuation in straightforward situations (e.g., items in a series) Delete commas that disturb the sentence flow (e.g., between modifier and modified element) Use commas to set off simple parenthetical phrases Delete unnecessary commas when an incorrect reading of the sentence suggests a pause that should be punctuated (e.g., between verb and direct object clause) Use punctuation to set off complex parenthetical phrases Recognize and delete unnecessary commas based on a careful reading of a complicated sentence (e.g., between the elements of a compound subject or compound verb joined by *and*) Use apostrophes to indicate simple possessive nouns Recognize inappropriate uses of colons and semicolons Use commas to set off a nonessential/nonrestrictive appositive or clause

TABLE 1C

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	ACT English and Writing College Readiness Standards
Written and Oral Communication	
	Writing College Readiness Standards **Using Language:** Show effective use of language to clearly communicate ideas by • correctly employing most conventions of standard English grammar, usage, and mechanics, with just a few, if any, errors • using precise and varied vocabulary • using a variety of kinds of sentence structures to vary pace and to support meaning
Oral Communication Strategies	
OC-1. Interactive Listening	
OC-12-1. In oral communication, students demonstrate interactive listening by… • **OC-12-1.1.** Following verbal instructions to perform specific tasks, to answer questions, or to solve problems • **OC-12-1.2.** Summarizing, paraphrasing, questioning, or contributing to information presented to advance understanding • **OC-12-1.3.** Identifying the thesis of a presentation, determining the essential elements of elaboration, and interpreting or evaluating the message • **OC-12-1.4.** Participating in large and small group discussions showing respect for individual ideas • **OC-12-1.5.** Reaching consensus to solve a problem, make a decision, or achieve a goal	
OC-2. Make Oral Presentations	
OC-12-2. In oral communication, students make oral presentations by… • **OC-12-2.1.** Exhibiting logical organization and language use, appropriate to audience, context, and purpose • **OC-12-2.2.** Maintaining a consistent focus • **OC-12-2.3.** Including smooth transitions, supporting thesis with well-chosen details, and providing a coherent conclusion EXAMPLES (of support and elaboration): Using anecdotes, analogies, illustrations, visuals, detailed descriptions, restatements, paraphrases, examples, comparisons, artifacts • **OC-12-2.4.** Effectively responding to audience questions and feedback • **OC-12-2.5.** Using a variety of strategies of address (e.g., eye contact, speaking rate, volume, articulation, enunciation, pronunciation, inflection, voice modulation, intonation, rhythm, and gesture) to communicate ideas effectively • **OC-12-2.6.** Using tools of technology to enhance message	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Reading	
Early Reading Strategies	
R-9. Phonological Awareness	
[No GLE at this grade level]	
R-10. Concepts of Print	
[No GLE at this grade level]	
Reading Fluency and Accuracy	
R-11. Reading Fluency and Accuracy	
R-12-11. Reads grade-level appropriate material with: • **R-12-11.1.** Accuracy: reading material appropriate for high school with at least 90–94% accuracy • **R-12-11.2.** Fluency: reading with appropriate silent and oral reading fluency rates determined by text demands, and purpose for reading • **R-12-11.3.** Fluency: reading familiar text with phrasing and expression, and with attention to text features such as punctuation, italics, and dialogue	
Word Identification Skills and Strategies	
R-1. Word Identification and Decoding Strategies	
R-12-1. Applies word identification/decoding strategies by… • **R-12-1.1.** Identifying multisyllabic words by using knowledge of sounds, syllable division, and word patterns **R-12-1.2–R-12-1.6.** *[No GLE at this grade level]*	
Vocabulary	
R-2. Vocabulary Strategies	
R-12-2. Students identify the meaning of unfamiliar vocabulary by… • **R-12-2.1a.** Using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes, common roots, or word origins; or context clues; or resources including dictionaries, glossaries, or thesauruses to determine definition, pronunciation, etymology, or usage of words; or prior knowledge) • **R-12-2.1b.** Using strategies to unlock meaning including base words, general and specialized print or electronic resources to determine definition, pronunciation, etymology, or usage of words; or prior knowledge	Figure out the correct meaning of a word based on how the word is used Identify the correct meaning of an acronym that is defined in the document Identify the paraphrased definition of a technical term or jargon that is defined in the document Figure out the less common meaning of a word based on the context Figure out the definitions of difficult, uncommon words based on how they are used Figure out the meaning of jargon or technical terms based on how they are used

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Reading	
R-3. Breadth of Vocabulary	
R-12-3. Shows breadth of vocabulary knowledge through demonstrating understanding of word meanings and relationships by… • **R-12-3.1.** Identifying synonyms, antonyms, homonyms/ homophones, shades of meaning, analogies, idioms, or word origins, including words from dialects or other languages that have been adopted into standard English • **R-12-3.2.** Selecting appropriate words or explaining the use of words in context, including connotation or denotation, shades of meanings of words/nuances, or idioms; or use of content-specific vocabulary, words with multiple meanings, precise language, or technical vocabulary	Identify the correct meaning of an acronym that is defined in the document Figure out the correct meaning of a word based on how the word is used Identify the paraphrased definition of a technical term or jargon that is defined in the document Apply technical terms and jargon and relate them to stated situations Figure out the less common meaning of a word based on the context Figure out the definitions of difficult, uncommon words based on how they are used Figure out the meaning of jargon or technical terms based on how they are used
Literary Texts	
R-4. Initial Understanding of Literary Texts	
R-12-4. Demonstrate initial understanding of elements of literary texts by… • **R-12-4.1.** Identifying, describing, or making logical predictions about character (such as protagonist or antagonist), setting, problem/solution, or plots/subplots, as appropriate to text; or identifying any significant changes in character, relationships, or setting over time; or identifying rising action, climax, or falling action • **R-12-4.2.** Paraphrasing or summarizing key ideas/plot, with major events sequenced, as appropriate to text • **R-12-4.3.** Generating questions before, during, and after reading to enhance/expand understanding and/or gain new information • **R-12-4.4.** Identifying the characteristics of a variety of types/genres of literary text (e.g., literary texts: poetry, plays, fairytales, fantasy, fables, realistic fiction, folktales, historical fiction, mysteries, science fiction, legends, myths, short stories, epics, novels, dramatic presentations, comedies, tragedies, satires, parodies, memoirs, epistles) • **R-12-4.5.** Identify literary devices as appropriate to genre (e.g., similes, metaphors, alliteration, rhyme scheme, onomatopoeia, imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, allusion, diction, syntax, bias, or point of view)	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Reading	
R-5, R-6. Analysis and Interpretation of Literary Text, Citing Evidence	
R-12-5. Analyze and interpret literary elements within or across texts, citing evidence where appropriate by… • **R-12-5.1.** Explaining and supporting logical predictions or logical outcomes (e.g., drawing conclusions based on interactions between characters or evolving plot) • **R-12-5.2.** Examining characterization (e.g., stereotype, antagonist, protagonist), motivation, or interactions (including relationships), citing thoughts, words, or actions that reveal character traits, motivations, or changes over time • **R-12-5.3.** Making inferences about cause/effect, internal or external conflicts (e.g., person versus self, person versus person, person versus nature/society/fate), or the relationship among elements within text(s) (e.g., describing the interaction among plot/subplots, theme/ setting, symbolism/characterization) • **R-12-5.4.** Explaining how the narrator's point of view, or author's style, or tone is evident and affects the reader's interpretation or is supported throughout the text(s) • **R-12-5.5.** Explaining how the author's purpose (e.g., to entertain, inform or persuade), message or theme (which may include universal themes) is supported within the text(s) • **R-12-5.6.** *[Subsumed under R-12-5.2 and R-12-5.3]*	
R-12-6. Analyze and interpret author's craft within or across texts, citing evidence where appropriate by… • **R-12-6.1a.** Demonstrating knowledge of author's style or use of literary elements and devices (e.g., simile, metaphor, point of view, imagery, repetition, flashback, foreshadowing, personification, hyperbole, symbolism, analogy, allusion, diction, syntax, genre, or bias, or use of punctuation) to analyze literary works • **R-12-6.1b.** Examining author's style or use of literary devices to convey theme	
R-16. Generates a Personal Response	
R-12-16. Generates a personal response to what is read through a variety of means… • **R-12-16.1.** Comparing stories or other texts to related personal experience, prior knowledge, or to other books • **R-12-16.2.** Providing relevant details to support the connections made or judgments (interpretive, analytical, evaluative, or reflective)	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Reading	
Informational Texts	
R-7. Initial Understanding of Informational Text	
R-12-7. Demonstrate initial understanding of informational texts (expository and practical texts) by… • **R-12-7.1.** Obtaining information from text features [e.g., table of contents, glossary, index, transition words/ phrases, transitional devices (including use of white space), bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations] • **R-12-7.2.** Using information from the text to answer questions, perform specific tasks, or solve problems; to state the main/central ideas; to provide supporting details; to explain visual components supporting the text; or to interpret maps, charts, timelines, tables, or diagrams • **R-12-7.3.** Organizing information to show understanding or relationships among facts, ideas, and events (e.g., representing main/central ideas or details within text through charting (including flowcharts), mapping, paraphrasing, summarizing, comparing/contrasting, outlining, or connecting information with related ideas) • **R-12-7.4.** Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information • **R-12-7.5.** Identifying the characteristics of a variety of types of text (e.g., reference, public documents [drivers' manuals] and discourse, essays [including literary criticisms], articles, technical manuals, editorials/ commentaries, primary source documents, periodicals, job-related materials, speeches, on-line reading, documentaries; and practical/functional)	Identify main ideas and clearly stated details Identify important details that may not be clearly stated Choose when to perform each step in a short series of steps Apply instructions to a situation that is the same as the one in the reading materials Choose what to do when changing conditions call for a different action (follow directions that include "if-then" statements) Apply straightforward instructions to a new situation that is similar to the one described in the material Apply complex instructions that include conditionals to situations described in the materials Apply complicated instructions to new situations Figure out the principles behind policies, rules, and procedures Apply general principles from the materials to similar and new situations Explain the rationale behind a procedure, policy, or communication
R-8. Analysis and Interpretation of Informational Text, Citing Evidence	
R-12-8. Analyze and interpret informational text (which may include technical writing), citing evidence as appropriate by… • **R-12-8.1.** Explaining connections among ideas across multiple texts • **R-12-8.2.** Synthesizing and evaluating information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas) • **R-12-8.3.** Drawing inferences about text, including author's purpose (e.g., to inform, explain, entertain, persuade) or message; or explaining how purpose may affect the interpretation of the text; or using supporting evidence to form or evaluate opinions/judgments and assertions about central ideas that are relevant • **R-12-8.4.** Critiquing author's use of strategies to achieve intended purpose or message (e.g., to inform, explain, entertain, persuade) EXAMPLE (critique public documents): May include analysis of using anecdotes, addressing counterclaims, appealing to audience, using emotionally-laden language	Figure out the principles behind policies, rules, and procedures Explain the rationale behind a procedure, policy, or communication Identify implied details Figure out the general principles behind the policies and apply them to situations that are quite different from any described in the materials Apply straightforward instructions to a new situation that is similar to the one described in the material

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Reading	
EXAMPLE (critique functional documents): May include visual appeal, logical sequences, awareness of possible reader misunderstanding • **R-12-8.5.** Making inferences about causes and effects • **R-12-8.6.** Evaluating the clarity and accuracy of information (e.g. consistency, effectiveness of organizational pattern, or logic of arguments)	
Reading Strategies	
R-12. Strategies for Monitoring and Adjusting Reading	
R-12-12. Demonstrates ability to monitor comprehension and strategy use for different types of texts and purposes by… • **R-12-12.1.** Using a range of self-monitoring and self-correction approaches (e.g., rereading, adjusting rate, sub-vocalizing, consulting resources, questioning, using flexible note taking/mapping systems, skimming, scanning)	
R-13. Reading Comprehension Strategies	
R-12-13. Uses Comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text. EXAMPLES of reading comprehension strategies might include: using prior knowledge; summarizing; predicting and making text based inferences; determining importance; generating literal, clarifying, inferential, analysis, synthesis, and evaluative questions; constructing sensory images (e.g., making pictures in one's mind); making connections (text to self , text to text, and text to world); taking notes; locating and using text discourse features and elements to support inferences and generalizations about information (e.g. vocabulary, text structure, evidence, format, use of language, arguments used); or using cues for text structures (e.g., chronological, cause/effect, compare/contrast, proposition and support, description, classification, logical/sequential)	Identify implied details Use technical terms and jargon in new situations Figure out the less common meaning of a word based on the context Apply complicated instructions to new situations Figure out the principles behind policies, rules, and procedures Apply general principles from the materials to similar and new situations Explain the rationale behind a procedure, policy, or communication Figure out the general principles behind the policies and apply them to situations that are quite different from any described in the materials Apply straightforward instructions to a new situation that is similar to the one described in the material Apply complex instructions that include conditionals to situations described in the materials
Breadth of Reading	
R-14. Reading Widely and Extensively	
R-12-14. Demonstrates the habit of reading widely and extensively by… • **R-12-14.1.** Reading with frequency, including in-school, out-of-school, and summer reading • **R-12-14.2.** Reading from a wide range of genres/kinds of text, including primary and secondary sources, and a variety of authors (e.g., literary, informational, and practical/functional texts) • **R-12-14.3.** Reading multiple texts for depth of understanding an author, subject, theme, or genre	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Reading	
R-17. Participating in Literate Community	
R-12-17. Demonstrates participation in a literate community by… • **R-12-17.1.** Self-selecting reading materials in line with reading ability and personal interests • **R-12-17.2.** Participating in in-depth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others	
R-15. Reading for Research Across Content Areas	
R-12-15. Research by reading multiple sources (including print and non-print texts) to solve a problem, or to make a decision, or to formulate a judgment, or to support a thesis by… • **R-12-15.1.** Identifying and evaluating potential sources of information • **R-12-15.2.** Evaluating and selecting the information presented, in terms of completeness, relevance, and validity • **R-12-15.3.** Organizing, analyzing, and interpreting the information • **R-12-15.4.** Drawing conclusions/judgments and supporting them with evidence	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
Habit of Writing	
W-10. Writing Process	
W-12-10. Students use a recursive process, including pre-writing, drafting, revising, editing, and critiquing to produce final drafts of written products.	
W-11. Writing Extensively	
W-12-11. Demonstrates the habit of writing extensively by… • **W-12-11.1.** Writing with frequency, including in-school, out-of-school, and during the summer • **W-12-11.2.** Sharing thoughts, observations, or impressions • **W-12-11.3.** Generating topics for writing EXAMPLES: Journal writing, free writes, poetry, quick writes, scientific observations, learning logs, readers'/writers' notebook, letters and personal notes, reading response journals, sketch journals/cartooning, songs, lyrics, reflective writing, short plays • **W-12-11.4.** Writing in a variety of genres	
Structures of Language	
W-1. Applying Understanding of Sentences, Paragraphs, and Text Structures	
W-12-1. Students demonstrate command of the structures of sentences, paragraphs, and text by… • **W-12-1.1.** Using varied sentence length and structure to enhance meaning (e.g., including phrases, clauses, and parallel structure) • **W-12-1.2.** Using paragraph structures appropriately (e.g., block or indented format) • **W-12-1.3.** Recognizing organizational structures within paragraphs or within texts EXAMPLES (of text structures): description, sequence, chronology, proposition/support, compare/contrast, problem/solution, cause/effect, investigation, deductive/inductive • **W-12-1.4.** Applying a format and text structure appropriate to purpose, audience, and context EXAMPLES (of formats): academic essay, extended research essay, critical analysis • **W-12-1.5.** *[Subsumed in W-12-1.1]* • **W-12-1.6.** Applying directionality as appropriate to text	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
Reading-Writing Connection	
W-2. Writing in Response to Literary or Informational Text—Showing Understanding of Ideas in Text	
W-12-2. In response to literary or informational text, students show understanding of plot/ideas/concepts within or across texts by… • **W-12-2.1.** Selecting and summarizing key ideas to set context, appropriate to audience • **W-12-2.2.** *[Subsumed in W-12-2.1]* • **W-12-2.3.** Connecting what has been read (plot/ideas/ concepts) to prior knowledge, other texts, or the broader world of ideas, by referring to and explaining relevant ideas, themes, motifs, or archetypes • **W-12-2.4.** Explaining the visual components (e.g., charts, diagrams, artwork) of the text, when appropriate	
W-3. Writing in Response to Literary or Informational Text—Making Analytical Judgments about Text	
W-12-3. In response to literary or informational text, students make and support analytical judgments about text by… • **W-12-3.1.** Establishing an interpretive claim/assertion in the form of a thesis (purpose) • **W-12-3.2.** Making inferences about the relationship(s) among content, events, characters, setting, theme, or author's craft EXAMPLES: Making links to author's choice of words, style, bias, literary techniques, or point of view; making links to characteristics of literary forms or genres • **W-12-3.3.** Using specific details and references to text or relevant citations to support thesis, interpretations, or conclusions • **W-12-3.4.** Organizing ideas, using transitional words/ phrases and drawing a conclusion by synthesizing information (e.g., demonstrate a connection to the broader world of ideas)	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
Expressive Writing	
W-4. Narratives—Creating a Story Line	
W-12-4. In written narratives, students organize and relate a story line/plot/series of events by… • **W-12-4.1.** Creating a clear and coherent, logically consistent structure EXAMPLES: Biographical or historical accounts, fiction or non-fiction stories, personal narratives, narrative poems or songs, parodies of particular narrative styles (fable, soap opera) • **W-12-4.2.** Establishing context, character motivation, problem/conflict/challenge, and resolution, significance of setting, and maintaining point of view • **W-12-4.3.** Using a variety of effective transitional devices (e.g., ellipses; time transitions: such as flashback or foreshadowing; white space; or words/ phrases) to enhance meaning • **W-12-4.4.** Using a variety of effective literary devices (i.e., flashback or foreshadowing, figurative language imagery) to enhance meaning • **W-12-4.5.** Establishing and maintaining theme • **W-12-4.6.** Providing a sense of closure	
W-5. Narratives—Applying Narrative Strategies	
W-12-5. Students demonstrate use of narrative strategies to engage the reader by… • **W-12-5.1.** Creating images, using relevant and descriptive details and sensory language to advance the plot/story line • **W-12-5.2.** Using dialogue to advance plot/story line • **W-12-5.3.** Developing characters through description, dialogue, actions (including gestures, expressions), and relationships with other characters, when appropriate • **W-12-5.4.** Using voice appropriate to purpose • **W-12-5.5.** Maintaining focus • **W-12-5.6.** Selecting and elaborating important ideas; and excluding extraneous details • **W-12-5.7.** Controlling the pace of the story EXAMPLES: Developing tension or suspense	
W-12, W-13. Poetry	
W-12-12. In writing poetry, students demonstrate awareness of purpose by… • **W-12-12.1.** Writing poems in a variety of voices for a variety of audiences (purpose) • **W-12-12.2.** Writing poems that express speaker's moods, thoughts, or feelings • **W-12-12.3.** Choosing conventional or alternative text structures to achieve impact	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
W-12-13. In writing poetry, use language effectively by… • **W-12-13.1.** Selecting vocabulary according to purpose and for effect on audience • **W-12-13.2.** Using rhyme, rhythm, meter, literary elements (e.g., setting, plot, characters) or figurative language EXAMPLES (of figurative language): simile, personification, alliteration, onomatopoeia, metaphor • **W-12-13.3.** Selecting and manipulating words, phrases, or clauses, for connotation/shades of meaning and impact • **W-12-13.4.** Using a variety of poetic forms	
W-14. Reflective Essay	
W-12-14. In reflective writing, students explore and share thoughts, observations, and impressions by… • **W-12-14.1.** Engaging the reader by establishing context (purpose) • **W-12-14.2.** Analyzing a condition or situation of significance or developing a commonplace, concrete occasion as the basis for the reflection • **W-12-14.3.** Using an organizational structure that allows for a progression of ideas to develop • **W-12-14.4.** Using a range of elaboration techniques (i.e., questioning, comparing, connecting, interpreting, analyzing, or describing) to establish a focus • **W-12-14.5.** Providing closure - leaving the reader with something to think about • **W-12-14.6.** Making connections between personal ideas and experiences and more abstract aspects of life, leading to new perspectives or insights EXAMPLE: In a reflection upon a personal friendship, a student identifies a new insight about the relationship.	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
Informational Writing	
W-6. Reports, Procedures, or Persuasive Writing—Organizing Information	
W-12-6. In informational writing, students organize ideas/ concepts by… • **W-12-6.1.** Using a text structure appropriate to focus/ controlling idea or thesis (e.g., purpose, audience, context) EXAMPLES (of text structures): sequence (in procedures), chronology, proposition/support, compare/contrast, problem/ solution, cause/effect, investigation, deductive/inductive reasoning • **W-12-6.2.** Selecting appropriate and relevant information (excluding extraneous details) to set context • **W-12-6.3.** Using transitional words or phrases appropriate to text structure to enhance ideas • **W-12-6.4a.** Drawing a conclusion by synthesizing information • **W-12-6.4b.** Synthesizing information from multiple sources to draw conclusions beyond those found in any single source • **W-12-6.5.** Listing and citing sources using standard format	
W-7. Reports, Procedures, or Persuasive Writing—Conveying Information	
W-12-7. In informational writing, students effectively convey purpose by… • **W-12-7.1.** Establishing a topic • **W-12-7.2.** Stating and maintaining a focus/controlling idea/thesis • **W-12-7.3.** Selecting and using formal, informal, literary, or technical language appropriate to audience and context • **W-12-7.4.** Establishing an authoritative voice • **W-12-7.5.** Using precise and descriptive language that clarifies and supports intent and enhances meaning	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
W-8. Reports, Procedures, or Persuasive Writing—Using Elaboration Strategies	
W-12-8. In informational writing, students demonstrate use of a range of elaboration strategies by… • **W-12-8.1.** Including facts and details relevant to focus/ controlling idea or thesis, and excluding extraneous information • **W-12-8.2.** Including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, contrasting, or using visual images to support intended purpose • **W-12-8.3.** Addressing readers' concerns (anticipating and addressing potential problems, mistakes, or misunderstandings that might arise for the audience) • **W-12-8.4.** Commenting on the significance of the information (in reports, throughout the piece; in procedural or persuasive writing, as appropriate)	
Writing Conventions	
W-9. Applying Rules of Grammar, Usage, and Mechanics	
W-12-9. In independent writing, students demonstrate command of appropriate English conventions by… • **W-12-9.1.** Applying rules of standard English usage to correct grammatical errors EXAMPLES: subject-verb agreement, pronoun-antecedent, consistency of verb tense, case of pronouns • **W-12-9.2.** Applying capitalization rules • **W-12-9.3.** *[Subsumed in W-12-9.4]* • **W-12-9.4.** Applying appropriate punctuation to various sentence patterns to enhance meaning EXAMPLE: brackets • **W-12-9.5.** Applying conventional and word-derivative spelling patterns/rules EXAMPLES: identifying relationships among roots and common pre/suffixes, including foreign derivation	

TABLE 1D

RHODE ISLAND Grade 12 Language Arts Grade-Level/-Span Expectations	WorkKeys *Reading for Information* Skills
Written and Oral Communication	
Oral Communication Strategies	
OC-1. Interactive Listening	
OC-12-1. In oral communication, students demonstrate interactive listening by… • **OC-12-1.1.** Following verbal instructions to perform specific tasks, to answer questions, or to solve problems • **OC-12-1.2.** Summarizing, paraphrasing, questioning, or contributing to information presented to advance understanding • **OC-12-1.3.** Identifying the thesis of a presentation, determining the essential elements of elaboration, and interpreting or evaluating the message • **OC-12-1.4.** Participating in large and small group discussions showing respect for individual ideas • **OC-12-1.5.** Reaching consensus to solve a problem, make a decision, or achieve a goal	
OC-2. Make Oral Presentations	
OC-12-2. In oral communication, students make oral presentations by… • **OC-12-2.1.** Exhibiting logical organization and language use, appropriate to audience, context, and purpose • **OC-12-2.2.** Maintaining a consistent focus • **OC-12-2.3.** Including smooth transitions, supporting thesis with well-chosen details, and providing a coherent conclusion EXAMPLES (of support and elaboration): Using anecdotes, analogies, illustrations, visuals, detailed descriptions, restatements, paraphrases, examples, comparisons, artifacts • **OC-12-2.4.** Effectively responding to audience questions and feedback • **OC-12-2.5.** Using a variety of strategies of address (e.g., eye contact, speaking rate, volume, articulation, enunciation, pronunciation, inflection, voice modulation, intonation, rhythm, and gesture) to communicate ideas effectively • **OC-12-2.6.** Using tools of technology to enhance message	

SUPPLEMENT
TABLES 2A–2K:
MATHEMATICS

TABLE 2A

RHODE ISLAND Grade 8 Mathematics Process Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Problem Solving, Reasoning, and Proof	
M(PRP)-8-1. Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: • Use problem-solving strategies appropriately and effectively for a given situation. • Determine, collect and organize the relevant information needed to solve real-world problems. • Apply integrated problem-solving strategies to solve problems in the physical, natural, and social sciences and in pure mathematics. • Use technology when appropriate to solve problems. • Reflect on solutions and the problem-solving process for a given situation and refine strategies as needed.	**Basic Operations & Applications:** Solve problems in one or two steps using whole numbers Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
M(PRP)-8-2. Students will use mathematical reasoning and proof and be able to: • Draw logical conclusions and make generalizations using deductive and inductive reasoning. • Formulate, test, and justify mathematical conjectures and arguments. • Construct and determine the validity of a mathematical argument or a solution. • Apply mathematical reasoning skills in other disciplines.	

TABLE 2A

RHODE ISLAND Grade 8 Mathematics Process Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Communication, Connections, and Representations	
M(CCR)-8-1. Students will communicate their understanding of mathematics and be able to: • Articulate ideas clearly and logically in both written and oral form. • Present, share, explain, and justify thinking with others and build upon the ideas of others to solve problems. • Use mathematical symbols and notation. • Formulate questions, conjectures, definitions, and generalizations about data, information, and problem situations.	**Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)
M(CCR)-8-2. Students will create and use representations to communicate mathematical ideas and to solve problems and be able to: • Use models and technology to develop equivalent representations of the same mathematical concept. • Use and create representations to solve problems and organize their thoughts and ideas. • Convert between representations (e.g., a table of values, an equation, and a graph may all be representations of the same function).	**Basic Operations & Applications:** Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) **Probability, Statistics, & Data Analysis:** Translate from one representation of data to another (e.g., a bar graph to a circle graph) Use Venn diagrams in counting **Expressions, Equations, & Inequalities:** Perform straightforward word-to-symbol translations Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Match linear graphs with their equations
M(CCR)-8-3. Students will recognize, explore, and develop mathematical connections and be able to: • Connect new mathematical ideas to those already studied and build upon them. • Understand that many real-world applications require an understanding of mathematical concepts (e.g., personal finance, running a business, building a house, following a recipe, or sending a rocket to the moon). • Explain in oral and written form the relationships between a real-world problem and an appropriate mathematical model. • Explain in oral and written form the relationships among various mathematical concepts (e.g., the relationship between exponentiation and multiplication).	**Basic Operations & Applications:** Solve problems in one or two steps using whole numbers Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)

TABLE 2B

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Problem Solving, Reasoning, and Proof	
M(PRP)-HS-1. Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: • Expand the repertoire of problem-solving strategies and use those strategies in more sophisticated ways. • Use technology whenever appropriate to solve real-world problems (e.g., personal finance, wages, banking and credit, home improvement problems, measurement, taxes, business situations, purchasing, and transportation). • Formulate and redefine problem situations as needed to arrive at appropriate conclusions.	**Basic Operations & Applications:** Solve problems in one or two steps using whole numbers Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
M(PRP)-HS-2. Students will use mathematical reasoning and proof and be able to: • Expand the repertoire of proof techniques and use those techniques in more sophisticated ways. • Use informal and formal reasoning and proof to explain and justify conclusions. • Formalize mathematical arguments through the use of deductive reasoning. • Use the principle of mathematical induction. • Use reasoning and proof throughout classroom discussions independent of the mathematical topic being studied. • Recognize how reasoning and proof influence the structure of mathematics.	

TABLE 2B

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Communication, Connections, and Representations	
M(CCR)-HS-1. Students will communicate their understanding of mathematics and be able to: • Explain and justify their thinking and develop increasingly sophisticated questions for given problem-situations. • Critique and follow the logic of arguments presented within mathematics and across disciplines.	
M(CCR)-HS-2. Students will create and use representations to communicate mathematical ideas and to solve problems and be able to: • Choose appropriate representations and mathematical language (e.g., spreadsheets, geometric models, algebraic symbols, tables, graphs, matrices) to present ideas clearly and logically for a given situation. • See a common structure in mathematical phenomena that come from very different contexts (e.g., the sum of the first n odd natural numbers, the areas of square gardens, and the distance traveled by a vehicle that starts at rest and accelerates at a constant rate can be represented by functions of the form $f(x) = ax^2$). • Find representations that model essential features of a mathematical situation (e.g., cost of postage can be modeled by a step-function). • Use representations as a primary means for expressing and understanding more abstract mathematical concepts.	**Basic Operations & Applications:** Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) **Probability, Statistics, & Data Analysis:** Translate from one representation of data to another (e.g., a bar graph to a circle graph)
M(CCR)-HS-3. Students will recognize, explore, and develop mathematical connections and be able to: • Explain in oral or written form how mathematics connects to other disciplines, to daily life, careers, and society (e.g., geometry in art and literature, data analysis in social studies, and exponential growth in finance). • Explain multiple approaches that lead to equivalent results when solving problems.	

TABLE 2C

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Problem Solving, Reasoning, and Proof	
M(PRP)-HS-1. Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: • Expand the repertoire of problem-solving strategies and use those strategies in more sophisticated ways. • Use technology whenever appropriate to solve real-world problems (e.g., personal finance, wages, banking and credit, home improvement problems, measurement, taxes, business situations, purchasing, and transportation). • Formulate and redefine problem situations as needed to arrive at appropriate conclusions.	**Basic Operations & Applications:** Solve problems in one or two steps using whole numbers Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages
M(PRP)-HS-2. Students will use mathematical reasoning and proof and be able to: • Expand the repertoire of proof techniques and use those techniques in more sophisticated ways. • Use informal and formal reasoning and proof to explain and justify conclusions. • Formalize mathematical arguments through the use of deductive reasoning. • Use the principle of mathematical induction. • Use reasoning and proof throughout classroom discussions independent of the mathematical topic being studied. • Recognize how reasoning and proof influence the structure of mathematics.	

TABLE 2C

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Communication, Connections, and Representations	
M(CCR)-HS-1. Students will communicate their understanding of mathematics and be able to: • Explain and justify their thinking and develop increasingly sophisticated questions for given problem-situations. • Critique and follow the logic of arguments presented within mathematics and across disciplines.	
M(CCR)-HS-2. Students will create and use representations to communicate mathematical ideas and to solve problems and be able to: • Choose appropriate representations and mathematical language (e.g., spreadsheets, geometric models, algebraic symbols, tables, graphs, matrices) to present ideas clearly and logically for a given situation. • See a common structure in mathematical phenomena that come from very different contexts (e.g., the sum of the first n odd natural numbers, the areas of square gardens, and the distance traveled by a vehicle that starts at rest and accelerates at a constant rate can be represented by functions of the form $f(x) = ax^2$). • Find representations that model essential features of a mathematical situation (e.g., cost of postage can be modeled by a step-function). • Use representations as a primary means for expressing and understanding more abstract mathematical concepts.	**Basic Operations & Applications:** Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages **Probability, Statistics, & Data Analysis:** Translate from one representation of data to another (e.g., a bar graph to a circle graph) Interpret and use information from figures, tables, and graphs **Graphical Representations:** Interpret and use information from graphs in the coordinate plane
M(CCR)-HS-3. Students will recognize, explore, and develop mathematical connections and be able to: • Explain in oral or written form how mathematics connects to other disciplines, to daily life, careers, and society (e.g., geometry in art and literature, data analysis in social studies, and exponential growth in finance). • Explain multiple approaches that lead to equivalent results when solving problems.	

TABLE 2D

Rhode Island Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Problem Solving, Reasoning, and Proof	
M(PRP)-HS-1. Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: • Expand the repertoire of problem-solving strategies and use those strategies in more sophisticated ways. • Use technology whenever appropriate to solve real-world problems (e.g., personal finance, wages, banking and credit, home improvement problems, measurement, taxes, business situations, purchasing, and transportation). • Formulate and redefine problem situations as needed to arrive at appropriate conclusions.	**Basic Operations & Applications:** Solve problems in one or two steps using whole numbers Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings)
M(PRP)-HS-2. Students will use mathematical reasoning and proof and be able to: • Expand the repertoire of proof techniques and use those techniques in more sophisticated ways. • Use informal and formal reasoning and proof to explain and justify conclusions. • Formalize mathematical arguments through the use of deductive reasoning. • Use the principle of mathematical induction. • Use reasoning and proof throughout classroom discussions independent of the mathematical topic being studied. • Recognize how reasoning and proof influence the structure of mathematics.	**Properties of Plane Figures:** Draw conclusions based on a set of conditions

TABLE 2D

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Communication, Connections, and Representations	
M(CCR)-HS-1. Students will communicate their understanding of mathematics and be able to: • Explain and justify their thinking and develop increasingly sophisticated questions for given problem-situations. • Critique and follow the logic of arguments presented within mathematics and across disciplines.	**Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas
M(CCR)-HS-2. Students will create and use representations to communicate mathematical ideas and to solve problems and be able to: • Choose appropriate representations and mathematical language (e.g., spreadsheets, geometric models, algebraic symbols, tables, graphs, matrices) to present ideas clearly and logically for a given situation. • See a common structure in mathematical phenomena that come from very different contexts (e.g., the sum of the first n odd natural numbers, the areas of square gardens, and the distance traveled by a vehicle that starts at rest and accelerates at a constant rate can be represented by functions of the form $f(x) = ax^2$). • Find representations that model essential features of a mathematical situation (e.g., cost of postage can be modeled by a step-function). • Use representations as a primary means for expressing and understanding more abstract mathematical concepts.	**Basic Operations & Applications:** Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings) **Probability, Statistics, & Data Analysis:** Translate from one representation of data to another (e.g., a bar graph to a circle graph) Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs **Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers **Expressions, Equations, & Inequalities:** Write expressions that require planning and/or manipulating to accurately model a situation **Graphical Representations:** Interpret and use information from graphs in the coordinate plane Solve problems integrating multiple algebraic and/or geometric concepts **Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas

TABLE 2D

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Communication, Connections, and Representations	
M(CCR)-HS-3. Students will recognize, explore, and develop mathematical connections and be able to: • Explain in oral or written form how mathematics connects to other disciplines, to daily life, careers, and society (e.g., geometry in art and literature, data analysis in social studies, and exponential growth in finance). • Explain multiple approaches that lead to equivalent results when solving problems.	

TABLE 2E

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	WorkKeys *Applied Mathematics* Skills
Problem Solving, Reasoning, and Proof	
M(PRP)-HS-1. Students will use problem-solving strategies to investigate and understand increasingly complex mathematical content and be able to: • Expand the repertoire of problem-solving strategies and use those strategies in more sophisticated ways. • Use technology whenever appropriate to solve real-world problems (e.g., personal finance, wages, banking and credit, home improvement problems, measurement, taxes, business situations, purchasing, and transportation). • Formulate and redefine problem situations as needed to arrive at appropriate conclusions.	Solve problems that require a single type of mathematics operation (addition, subtraction, multiplication, and division) using whole numbers Add or subtract negative numbers Change numbers from one form to another using whole numbers, fractions, decimals, or percentages Convert simple money and time units (e.g., hours to minutes) Solve problems that require one or two operations Multiply negative numbers Calculate averages, simple ratios, simple proportions, or rates using whole numbers and decimals Add commonly known fractions, decimals, or percentages (e.g., ½, .75, 25%) Add three fractions that share a common denominator Multiply a mixed number by a whole number or decimal Put the information in the right order before performing calculations Decide what information, calculations, or unit conversions to use to solve the problem Look up a formula and perform single-step conversions within or between systems of measurement Calculate using mixed units (e.g., 3.5 hours and 4 hours 30 minutes) Divide negative numbers Find the best deal using one- and two-step calculations and then comparing results Calculate perimeters and areas of basic shapes (rectangles and circles) Calculate percentage discounts or markups Use fractions, negative numbers, ratios, percentages, or mixed numbers Rearrange a formula before solving a problem Use two formulas to change from one unit to another within the same system of measurement Use two formulas to change from one unit in one system of measurement to a unit in another system of measurement Find mistakes in items that belong at Levels 3, 4, and 5 Find the best deal and use the result for another calculation Find areas of basic shapes when it may be necessary to rearrange the formula, convert units of measurement in the calculations, or use the result in further calculations Find the volume of rectangular solids Calculate multiple rates Solve problems that include nonlinear functions and/or that involve more than one unknown Find mistakes in Level 6 items

TABLE 2E

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	WorkKeys *Applied Mathematics* Skills
Problem Solving, Reasoning, and Proof	
	Convert between systems of measurement that involve fractions, mixed numbers, decimals, and/or percentages Calculate multiple areas and volumes of spheres, cylinders, or cones Set up and manipulate complex ratios or proportions Find the best deal when there are several choices Apply basic statistical concepts
M(PRP)-HS-2. Students will use mathematical reasoning and proof and be able to: • Expand the repertoire of proof techniques and use those techniques in more sophisticated ways. • Use informal and formal reasoning and proof to explain and justify conclusions. • Formalize mathematical arguments through the use of deductive reasoning. • Use the principle of mathematical induction. • Use reasoning and proof throughout classroom discussions independent of the mathematical topic being studied. • Recognize how reasoning and proof influence the structure of mathematics.	

TABLE 2E

RHODE ISLAND Grades 9–12 Mathematics Process Grade-Level/-Span Expectations	WorkKeys *Applied Mathematics* Skills
Communication, Connections, and Representations	
M(CCR)-HS-1. Students will communicate their understanding of mathematics and be able to: • Explain and justify their thinking and develop increasingly sophisticated questions for given problem-situations. • Critique and follow the logic of arguments presented within mathematics and across disciplines.	
M(CCR)-HS-2. Students will create and use representations to communicate mathematical ideas and to solve problems and be able to: • Choose appropriate representations and mathematical language (e.g., spreadsheets, geometric models, algebraic symbols, tables, graphs, matrices) to present ideas clearly and logically for a given situation. • See a common structure in mathematical phenomena that come from very different contexts (e.g., the sum of the first n odd natural numbers, the areas of square gardens, and the distance traveled by a vehicle that starts at rest and accelerates at a constant rate can be represented by functions of the form $f(x) = ax^2$). • Find representations that model essential features of a mathematical situation (e.g., cost of postage can be modeled by a step-function). • Use representations as a primary means for expressing and understanding more abstract mathematical concepts.	Put the information in the right order before performing calculations Decide what information, calculations, or unit conversions to use to solve the problem Put the information in the right order before performing calculations Calculate averages, simple ratios, simple proportions, or rates using whole numbers and decimals Look up a formula and perform single-step conversions within or between systems of measurement Rearrange a formula before solving a problem Use two formulas to change from one unit to another within the same system of measurement Use two formulas to change from one unit in one system of measurement to a unit in another system of measurement Solve problems that include nonlinear functions and/or that involve more than one unknown Convert between systems of measurement that involve fractions, mixed numbers, decimals, and/or percentages Set up and manipulate complex ratios or proportions
M(CCR)-HS-3. Students will recognize, explore, and develop mathematical connections and be able to: • Explain in oral or written form how mathematics connects to other disciplines, to daily life, careers, and society (e.g., geometry in art and literature, data analysis in social studies, and exponential growth in finance). • Explain multiple approaches that lead to equivalent results when solving problems.	

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Number and Operations	
M(N&O)-8-1. Demonstrates conceptual understanding of rational numbers with respect to absolute values, perfect square and cube roots, and percents as a way of describing change (percent increase and decrease) using explanations, models, or other representations.	**Basic Operations & Applications:** Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Work with cubes and cube roots of numbers
M(N&O)-8-2. Demonstrates understanding of the relative magnitude of numbers by ordering or comparing rational numbers, common irrational numbers (e.g., $\sqrt{2}$, π), numbers with whole number or fractional bases and whole number exponents, square roots, absolute values, integers, or numbers represented in scientific notation using number lines or equality and inequality symbols.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Order fractions Work with scientific notation Work with squares and square roots of numbers Work problems involving positive integer exponents Work with cubes and cube roots of numbers
M(N&O)-8-3. *[No GLE at this grade]*	
M(N&O)-8-4. Accurately solves problems involving proportional reasoning (percent increase or decrease, interest rates, markups, or rates); multiplication or division of integers; and squares, cubes, and taking square or cube roots.	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) **Numbers: Concepts & Properties:** Work with squares and square roots of numbers Work with cubes and cube roots of numbers
M(N&O)-8-5. *[No GLE at this grade]*	

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Number and Operations	
M(N&O)-8-6. Uses a variety of mental computation strategies to solve problems (e.g., using compatible numbers, applying properties of operations, using mental imagery, using patterns) and to determine the reasonableness of answers; and mentally calculates benchmark perfect squares and related square roots (e.g., 1^2, 2^2, … , 12^2, 15^2, 20^2, 25^2, 100^2, 1000^2); determines the part of a number using benchmark percents and related fractions (1%, 10%, 25%, $33\frac{1}{3}$%, 50%, $66\frac{2}{3}$%, 75%, and 100%) (e.g., 25% of 16; $33\frac{1}{3}$% of 330).	**Basic Operations & Applications:** Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers
M(N&O)-8-7. Makes estimates in a given situation (including tips, discounts, tax, and the value of a non-perfect square root as between two whole numbers) by identifying when estimation is appropriate, selecting the appropriate method of estimation; determining the level of accuracy needed given the situation; analyzing the effect of the estimation method on the accuracy of results; and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands.	**Basic Operations & Applications:** Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers
M(N&O)-8-8. Applies properties of numbers (odd, even, remainders, divisibility, and prime factorization) and field properties (commutative, associative, identity [including the multiplicative property of one, e.g., $2^0 \times 2^3 = 2^{0+3} = 2^3$, so $2^0 = 1$], distributive, inverses) to solve problems and to simplify computations, and demonstrates conceptual understanding of field properties as they apply to subsets of real numbers when addition and multiplication are not defined in the traditional ways (e.g., If $a\Delta b = a + b - 1$, is Δ a commutative operation?)	**Numbers: Concepts & Properties:** Recognize one-digit factors of a number Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Find and use the least common multiple Work with numerical factors

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Geometry and Measurement	
M(G&M)-8-1. *[No GLE at this grade]*	
M(G&M)-8-2. Applies the Pythagorean Theorem to find a missing side of a right triangle, or in problem solving situations.	**Properties of Plane Figures:** Recognize Pythagorean triples
M(G&M)-8-3. *[No GLE at this grade]*	
M(G&M)-8-4. *[No GLE at this grade]*	
M(G&M)-8-5. Applies concepts of similarity to determine the impact of scaling on the volume or surface area of three-dimensional figures when linear dimensions are multiplied by a constant factor; to determine the length of sides of similar triangles, or to solve problems involving growth and rate.	**Basic Operations & Applications:** Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average **Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information
M(G&M)-8-6. Demonstrates conceptual understanding of surface area or volume by solving problems involving surface area and volume of rectangular prisms, triangular prisms, cylinders, pyramids, or cones. Expresses all measures using appropriate units.	**Measurement:** Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information
M(G&M)-8-7. *[No GLE at this grade]*	
M(G&M)-8-8. *[No GLE at this grade]*	
M(G&M)-8-9. *[No GLE at this grade]*	
M(G&M)-8-10. *[No GLE at this grade]*	

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Functions and Algebra	
M(F&A)-8-1. Identifies and extends to specific cases a variety of patterns (linear and nonlinear) represented in models, tables, sequences, graphs, or in problem situations; and generalizes a linear relationship (non-recursive explicit equation); generalizes a linear relationship to find a specific case; generalizes a nonlinear relationship using words or symbols; or generalizes a common nonlinear relationship to find a specific case.	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Manipulate data from tables and graphs **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor **Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Exhibit knowledge of slope Determine the slope of a line from points or equations Match linear graphs with their equations
M(F&A)-8-2. Demonstrates conceptual understanding of linear relationships ($y = kx$; $y = mx + b$) as a constant rate of change by solving problems involving the relationship between slope and rate of change; informally and formally determining slopes and intercepts represented in graphs, tables, or problem situations; or describing the meaning of slope and intercept in context; and distinguishes between linear relationships (constant rates of change) and nonlinear relationships (varying rates of change) represented in tables, graphs, equations, or problem situations; or describes how change in the value of one variable relates to change in the value of a second variable in problem situations with constant and varying rates of change.	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Manipulate data from tables and graphs **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor **Expressions, Equations, & Inequalities:** Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Exhibit knowledge of slope Determine the slope of a line from points or equations Match linear graphs with their equations

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
M(F&A)-8-3. Demonstrates conceptual understanding of algebraic expressions by evaluating and simplifying algebraic expressions (including those with square roots, whole number exponents, or rational numbers); or by evaluating an expression within an equation (e.g., determine the value of y when $x = 4$ given $y = 7\sqrt{x} + 2x$).	**Numbers: Concepts & Properties:** Work with squares and square roots of numbers Work problems involving positive integer exponents **Expressions, Equations, & Inequalities:** Substitute whole numbers for unknown quantities to evaluate expressions Combine like terms (e.g., $2x + 5x$) Evaluate algebraic expressions by substituting integers for unknown quantities Add and subtract simple algebraic expressions Multiply two binomials Add, subtract, and multiply polynomials
M(F&A)-8-4. Demonstrates conceptual understanding of equality by showing equivalence between two expressions (expressions consistent with the parameters of the left- and right-hand sides of the equations being solved at this grade level) using models or different representations of the expressions, solving formulas for a variable requiring one transformation (e.g., $d = rt$; $d/r = t$); by solving multi-step linear equations with integer coefficients; by showing that two expressions are or are not equivalent by applying commutative, associative, or distributive properties, order of operations, or substitution; and by informally solving problems involving systems of linear equations in a context.	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Substitute whole numbers for unknown quantities to evaluate expressions Solve one-step equations having integer or decimal answers Combine like terms (e.g., $2x + 5x$) Evaluate algebraic expressions by substituting integers for unknown quantities Add and subtract simple algebraic expressions Solve routine first-degree equations Multiply two binomials Add, subtract, and multiply polynomials Solve first-degree inequalities that do not require reversing the inequality sign

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Data, Statistics, and Probability	
M(DSP)-8-1. Interprets a given representation (line graphs, scatter plots, histograms, or box-and-whisker plots) to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs
M(DSP)-8-2. Analyzes patterns, trends, or distributions in data in a variety of contexts by determining or using measures of central tendency (mean, median, or mode), dispersion (range or variation), outliers, quartile values, or estimated line of best fit to analyze situations, or to solve problems; and evaluates the sample from which the statistics were developed (bias, random, or non-random).	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Perform a single computation using information from a table or chart Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Read tables and graphs Perform computations on data from tables and graphs Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values Manipulate data from tables and graphs
M(DSP)-8-3. Organizes and displays data using scatter plots to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems; or identifies representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)-8-1.	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Perform a single computation using information from a table or chart Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Read tables and graphs Perform computations on data from tables and graphs Calculate the missing data value, given the average and all data values but one Translate from one representation of data to another (e.g., a bar graph to a circle graph) Calculate the average, given the frequency counts of all the data values Manipulate data from tables and graphs

TABLE 2F

RHODE ISLAND Grade 8 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
M(DSP)-8-4. Uses counting techniques to solve problems in context involving combinations or permutations using a variety of strategies (e.g., organized lists, tables, tree diagrams, models, Fundamental Counting Principle, or others).	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Exhibit knowledge of simple counting techniques Manipulate data from tables and graphs Use Venn diagrams in counting
M(DSP)-8-5. For a probability event in which the sample space may or may not contain equally likely outcomes, determines the experimental or theoretical probability of an event in a problem-solving situation; and predicts the theoretical probability of an event and tests the prediction through experiments and simulations; and compares and contrasts theoretical and experimental probabilities.	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Exhibit knowledge of simple counting techniques Compute straightforward probabilities for common situations Use Venn diagrams in counting
M(DSP)-8-6. In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, experimentation) to collect the data (numerical or categorical) necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the question or hypothesis being tested while considering the limitations that could affect interpretations; and when appropriate makes predictions; and asks new questions and makes connections to real world situations.	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs

TABLE 2G

RHODE ISLAND Grades 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Number and Operations	
M(N&O)-10-1. *[No GSE at this grade]*	
M(N&O)-10-2. Demonstrates understanding of the relative magnitude of real numbers by solving problems involving ordering or comparing rational numbers, common irrational numbers (e.g., $\sqrt{2}$, π), rational bases with integer exponents, square roots, absolute values, integers, or numbers represented in scientific notation using number lines or equality and inequality symbols. [S]	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Order fractions Work with scientific notation Work with squares and square roots of numbers Work problems involving positive integer exponents Work with cubes and cube roots of numbers
M(N&O)-10-3. *[No GSE at this grade]*	
M(N&O)-10-4. Accurately solves problems that involve but are not limited to proportional relationships, percents, ratios, and rates. (The problems might be drawn from contexts outside of and within mathematics including those that cut across content strands or disciplines.) [S]	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) **Expressions, Equations, & Inequalities:** Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)
M(N&O)-10-5. *[No standard at this level]*	
M(N&O)-10-6. Uses a variety of mental computation strategies to solve problems. Calculates benchmark perfect squares and related square roots (e.g., 1^2, 2^2 , … , 12^2, 15^2, 20^2, 25^2, 100^2, 1000^2). Determines any whole number percentage of a number or any multiples of 100% up to 500%. Determines benchmark fractions of a number.	**Basic Operations & Applications:** Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers

[S] = State assessed; all others assessed locally

TABLE 2G

RHODE ISLAND Grades 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Number and Operations	
M(N&O)-10-7. Makes appropriate estimates in a given situation by determining the level of accuracy needed and analyzing the accuracy of results. Estimates tips, discounts, and tax and estimates the value of a non-perfect square root or cube root.	**Basic Operations & Applications:** Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve word problems containing several rates, proportions, or percentages **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Work with cubes and cube roots of numbers
M(N&O)-10-8. Applies properties of numbers to solve problems, to simplify computations, or to compare and contrast the properties of numbers and number systems.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor

[S] = State assessed; all others assessed locally

TABLE 2G

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Geometry and Measurement	
M(G&M)-10-1. *[No GSE at this grade]*	
M(G&M)-10-2a. Creates formal proofs of propositions (e.g., angles, lines, circles, distance, midpoint and polygons including triangle ratios).	**Graphical Representations:** Comprehend the concept of length on the number line **Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use properties of isosceles triangles
M(G&M)-10-2b. Makes and defends conjectures, constructs geometric arguments, uses geometric properties, or uses theorems to solve problems involving angles, lines, polygons, circles, or right triangle ratios (sine, cosine, tangent) within mathematics or across disciplines or contexts (e.g., Pythagorean Theorem, Triangle Inequality Theorem). [S]	**Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Find the measure of an angle using properties of parallel lines Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use several angle properties to find an unknown angle measure Recognize Pythagorean triples Use properties of isosceles triangles **Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Compute the perimeter of simple composite geometric figures with unknown side lengths **Functions:** Express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths
M(G&M)-10-3. *[No GSE at this grade]*	
M(G&M)-10-4. Applies the concepts of congruency by solving problems on or off a coordinate plane involving reflections, translations, or rotations; or solves problems using congruency involving problems within mathematics or across disciplines or contexts. [S]	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Exhibit knowledge of slope Determine the slope of a line from points or equations

[S] = State assessed; all others assessed locally

TABLE 2G

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
M(G&M)-10-5. Applies concepts of similarity by solving problems within mathematics or across disciplines or contexts. [S]	**Basic Operations & Applications:** Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average
M(G&M)-10-6. Solves problems involving perimeter, circumference, or area of two-dimensional figures (including composite figures) or surface area or volume of three-dimensional figures (including composite figures) within mathematics or across disciplines or contexts. [S]	**Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Compute the perimeter of simple composite geometric figures with unknown side lengths
M(G&M)-10-7. Uses units of measure appropriately and consistently when solving problems across content strands; makes conversions within or across systems and makes decisions concerning an appropriate degree of accuracy in problem situations involving measurement in other GSEs. [S]	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
M(G&M)-10-8. *[No GSE at this grade]*	
M(G&M)-10-9. Solves problems on and off the coordinate plane involving distance, midpoint, perpendicular and parallel lines, or slope. [S]	**Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations
M(G&M)-10-10. Demonstrates conceptual understanding of spatial reasoning and visualization by sketching or using dynamic geometric software to generate three-dimensional objects from two-dimensional perspectives, or to generate two-dimensional perspectives from three-dimensional objects, or by solving related problems.	**Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information

[S] = State assessed; all others assessed locally

TABLE 2G

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Functions and Algebra	
M(F&A)-10-1. Identifies, extends, and generalizes a variety of patterns (linear and nonlinear) represented by models, tables, sequences, or graphs to solve problems. [S]	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor **Expressions, Equations, & Inequalities:** Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Exhibit knowledge of slope Match linear graphs with their equations
M(F&A)-10-2. Demonstrates conceptual understanding of linear and nonlinear functions and relations (including characteristics of classes of functions) through an analysis of constant, variable, or average rates of change, intercepts, domain, range, maximum and minimum values, increasing and decreasing intervals and rates of change (e.g., the height is increasing at a decreasing rate); describes how change in the value of one variable relates to change in the value of a second variable; or works between and among different representations of functions and relations (e.g., graphs, tables, equations, function notation). [S]	**Numbers: Concepts & Properties:** Determine when an expression is undefined **Expressions, Equations, & Inequalities:** Evaluate algebraic expressions by substituting integers for unknown quantities Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Identify solutions to simple quadratic equations **Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Match linear graphs with their equations **Functions:** Evaluate quadratic functions, expressed in function notation, at integer values Evaluate polynomial functions, expressed in function notation, at integer values

[S] = State assessed; all others assessed locally

TABLE 2G

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
M(F&A)-10-3. Demonstrates conceptual understanding of algebraic expressions by solving problems involving algebraic expressions, by simplifying expressions (e.g., simplifying polynomial or rational expressions, or expressions involving integer exponents, square roots, or absolute values), by evaluating expressions, or by translating problem situations into algebraic expressions. [S]	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Work problems involving positive integer exponents **Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities Add and subtract simple algebraic expressions Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Add, subtract, and multiply polynomials
M(F&A)-10-4. Demonstrates conceptual understanding of equality by solving problems involving algebraic reasoning about equality; by translating problem situations into equations; by solving linear equations (symbolically and graphically) and expressing the solution set symbolically or graphically, or provides the meaning of the graphical interpretations of solution(s) in problem-solving situations; or by solving problems involving systems of linear equations in a context (using equations or graphs) or using models or representations. [S]	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Solve one-step equations having integer or decimal answers Solve routine first-degree equations Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Identify the location of a point with a positive coordinate on the number line Locate points on the number line and in the first quadrant Locate points in the coordinate plane Match linear graphs with their equations

[S] = State assessed; all others assessed locally

TABLE 2G

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	EXPLORE Mathematics College Readiness Standards
Data, Statistics, and Probability	
M(DSP)-10-1. Interprets a given representation (e.g., box-and-whisker plots, scatter plots, bar graphs, line graphs, circle graphs, histograms, frequency charts) to make observations, to answer questions, to analyze the data to formulate or justify conclusions, critique conclusions, make predictions, or to solve problems within mathematics or across disciplines or contexts (e.g., media, workplace, social and environmental situations). [S]	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs
M(DSP)-10-2. Analyzes patterns, trends, or distributions in data in a variety of contexts by determining, using, or analyzing measures of central tendency (mean, median, or mode), dispersion (range or variation), outliers, quartile values, estimated line of best fit, regression line, or correlation (strong positive, strong negative, or no correlation) to solve problems; and solve problems involving conceptual understanding of the sample from which the statistics were developed. [S]	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Perform a single computation using information from a table or chart Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Read tables and graphs Perform computations on data from tables and graphs Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values
M(DSP)-10-3. Identifies or describes representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)-10-1. [S]	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph)
M(DSP)-10-4. Uses counting techniques to solve contextualized problems involving combinations or permutations (e.g., organized lists, tables, tree diagrams, models, Fundamental Counting Principle, or others). [S]	**Probability, Statistics, & Data Analysis:** Exhibit knowledge of simple counting techniques Use Venn diagrams in counting
M(DSP)-10-5. Solves problems involving experimental or theoretical probability. [S]	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Compute straightforward probabilities for common situations
M(DSP)-10-6. In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, research, experimentation) and sampling techniques (e.g., random sample, stratified random sample) to collect the data necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the questions or hypotheses being tested while considering the limitations of the data that could effect interpretations; and when appropriate makes predications, asks new questions, or makes connections to real-world situations.	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grades 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Number and Operations	
M(N&O)-10-1. *[No GSE at this grade]*	
M(N&O)-10-2. Demonstrates understanding of the relative magnitude of real numbers by solving problems involving ordering or comparing rational numbers, common irrational numbers (e.g., $\sqrt{2}$, π), rational bases with integer exponents, square roots, absolute values, integers, or numbers represented in scientific notation using number lines or equality and inequality symbols. [S]	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Order fractions Work with scientific notation Work with squares and square roots of numbers Work problems involving positive integer exponents Work with cubes and cube roots of numbers
M(N&O)-10-3. *[No GSE at this grade]*	
M(N&O)-10-4. Accurately solves problems that involve but are not limited to proportional relationships, percents, ratios, and rates. (The problems might be drawn from contexts outside of and within mathematics including those that cut across content strands or disciplines.) [S]	**Basic Operations & Applications:** Perform one-operation computation with whole numbers and decimals Solve problems in one or two steps using whole numbers Perform common conversions (e.g., inches to feet or hours to minutes) Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve some routine two-step arithmetic problems Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages **Expressions, Equations, & Inequalities:** Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions)
M(N&O)-10-5. *[No standard at this level]*	
M(N&O)-10-6. Uses a variety of mental computation strategies to solve problems. Calculates benchmark perfect squares and related square roots (e.g., 1^2, 2^2 , … , 12^2, 15^2, 20^2, 25^2, 100^2, 1000^2). Determines any whole number percentage of a number or any multiples of 100% up to 500%. Determines benchmark fractions of a number.	**Basic Operations & Applications:** Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grades 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Number and Operations	
M(N&O)-10-7. Makes appropriate estimates in a given situation by determining the level of accuracy needed and analyzing the accuracy of results. Estimates tips, discounts, and tax and estimates the value of a non-perfect square root or cube root.	**Basic Operations & Applications:** Solve routine one-step arithmetic problems (using whole numbers, fractions, and decimals) such as single-step percent Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve word problems containing several rates, proportions, or percentages **Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Work with cubes and cube roots of numbers
M(N&O)-10-8. Applies properties of numbers to solve problems, to simplify computations, or to compare and contrast the properties of numbers and number systems.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Apply number properties involving prime factorization Apply number properties involving even/odd numbers and factors/multiples Apply number properties involving positive/negative numbers Apply rules of exponents

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Geometry and Measurement	
M(G&M)-10-1. *[No GSE at this grade]*	
M(G&M)-10-2a. Creates formal proofs of propositions (e.g., angles, lines, circles, distance, midpoint and polygons including triangle ratios).	**Graphical Representations:** Comprehend the concept of length on the number line Interpret and use information from graphs in the coordinate plane Use the distance formula Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) **Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use properties of isosceles triangles Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles
M(G&M)-10-2b. Makes and defends conjectures, constructs geometric arguments, uses geometric properties, or uses theorems to solve problems involving angles, lines, polygons, circles, or right triangle ratios (sine, cosine, tangent) within mathematics or across disciplines or contexts (e.g., Pythagorean Theorem, Triangle Inequality Theorem). [S]	**Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Find the measure of an angle using properties of parallel lines Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use several angle properties to find an unknown angle measure Recognize Pythagorean triples Use properties of isosceles triangles Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles Use the Pythagorean theorem **Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
	Compute the perimeter of simple composite geometric figures with unknown side lengths Use relationships involving area, perimeter, and volume of geometric figures to compute another measure **Functions:** Express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths Apply basic trigonometric ratios to solve right-triangle problems
M(G&M)-10-3. *[No GSE at this grade]*	
M(G&M)-10-4. Applies the concepts of congruency by solving problems on or off a coordinate plane involving reflections, translations, or rotations; or solves problems using congruency involving problems within mathematics or across disciplines or contexts. [S]	**Graphical Representations:** Locate points on the number line and in the first quadrant Locate points in the coordinate plane Exhibit knowledge of slope Determine the slope of a line from points or equations Interpret and use information from graphs in the coordinate plane Use properties of parallel and perpendicular lines to determine an equation of a line or coordinates of a point **Properties of Plane Figures:** Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles
M(G&M)-10-5. Applies concepts of similarity by solving problems within mathematics or across disciplines or contexts. [S]	**Basic Operations & Applications:** Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve word problems containing several rates, proportions, or percentages **Properties of Plane Figures:** Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
M(G&M)-10-6. Solves problems involving perimeter, circumference, or area of two-dimensional figures (including composite figures) or surface area or volume of three-dimensional figures (including composite figures) within mathematics or across disciplines or contexts. [S]	**Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Compute the perimeter of polygons when all side lengths are given Compute the area of rectangles when whole number dimensions are given Compute the area and perimeter of triangles and rectangles in simple problems Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Compute the perimeter of simple composite geometric figures with unknown side lengths Use relationships involving area, perimeter, and volume of geometric figures to compute another measure
M(G&M)-10-7. Uses units of measure appropriately and consistently when solving problems across content strands; makes conversions within or across systems and makes decisions concerning an appropriate degree of accuracy in problem situations involving measurement in other GSEs. [S]	**Basic Operations & Applications:** Perform common conversions (e.g., inches to feet or hours to minutes) Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour)
M(G&M)-10-8. *[No GSE at this grade]*	
M(G&M)-10-9. Solves problems on and off the coordinate plane involving distance, midpoint, perpendicular and parallel lines, or slope. [S]	**Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Interpret and use information from graphs in the coordinate plane Use the distance formula Use properties of parallel and perpendicular lines to determine an equation of a line or coordinates of a point
M(G&M)-10-10. Demonstrates conceptual understanding of spatial reasoning and visualization by sketching or using dynamic geometric software to generate three-dimensional objects from two-dimensional perspectives, or to generate two-dimensional perspectives from three-dimensional objects, or by solving related problems.	**Measurement:** Estimate or calculate the length of a line segment based on other lengths given on a geometric figure Use geometric formulas when all necessary information is given Compute the area of triangles and rectangles when one or more additional simple steps are required Compute the area and circumference of circles after identifying necessary information Use relationships involving area, perimeter, and volume of geometric figures to compute another measure

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Functions and Algebra	
M(F&A)-10-1. Identifies, extends, and generalizes a variety of patterns (linear and nonlinear) represented by models, tables, sequences, or graphs to solve problems. [S]	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor **Expressions, Equations, & Inequalities:** Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) **Graphical Representations:** Exhibit knowledge of slope Match linear graphs with their equations Interpret and use information from graphs in the coordinate plane
M(F&A)-10-2. Demonstrates conceptual understanding of linear and nonlinear functions and relations (including characteristics of classes of functions) through an analysis of constant, variable, or average rates of change, intercepts, domain, range, maximum and minimum values, increasing and decreasing intervals and rates of change (e.g., the height is increasing at a decreasing rate); describes how change in the value of one variable relates to change in the value of a second variable; or works between and among different representations of functions and relations (e.g., graphs, tables, equations, function notation). [S]	**Numbers: Concepts & Properties:** Determine when an expression is undefined **Expressions, Equations, & Inequalities:** Evaluate algebraic expressions by substituting integers for unknown quantities Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Identify solutions to simple quadratic equations Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings Solve quadratic equations **Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Match linear graphs with their equations Interpret and use information from graphs in the coordinate plane Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) **Functions:** Evaluate quadratic functions, expressed in function notation, at integer values Evaluate polynomial functions, expressed in function notation, at integer values Evaluate composite functions at integer values

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
M(F&A)-10-3. Demonstrates conceptual understanding of algebraic expressions by solving problems involving algebraic expressions, by simplifying expressions (e.g., simplifying polynomial or rational expressions, or expressions involving integer exponents, square roots, or absolute values), by evaluating expressions, or by translating problem situations into algebraic expressions. [S]	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with squares and square roots of numbers Work problems involving positive integer exponents Apply rules of exponents **Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities Add and subtract simple algebraic expressions Perform straightforward word-to-symbol translations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Add, subtract, and multiply polynomials Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings
M(F&A)-10-4. Demonstrates conceptual understanding of equality by solving problems involving algebraic reasoning about equality; by translating problem situations into equations; by solving linear equations (symbolically and graphically) and expressing the solution set symbolically or graphically, or provides the meaning of the graphical interpretations of solution(s) in problem-solving situations; or by solving problems involving systems of linear equations in a context (using equations or graphs) or using models or representations. [S]	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Solve one-step equations having integer or decimal answers Solve routine first-degree equations Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings Find solutions to systems of linear equations **Graphical Representations:** Identify the location of a point with a positive coordinate on the number line Locate points on the number line and in the first quadrant Locate points in the coordinate plane Match linear graphs with their equations Interpret and use information from graphs in the coordinate plane

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
Data, Statistics, and Probability	
M(DSP)-10-1. Interprets a given representation (e.g., box-and-whisker plots, scatter plots, bar graphs, line graphs, circle graphs, histograms, frequency charts) to make observations, to answer questions, to analyze the data to formulate or justify conclusions, critique conclusions, make predictions, or to solve problems within mathematics or across disciplines or contexts (e.g., media, workplace, social and environmental situations). [S]	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs
M(DSP)-10-2. Analyzes patterns, trends, or distributions in data in a variety of contexts by determining, using, or analyzing measures of central tendency (mean, median, or mode), dispersion (range or variation), outliers, quartile values, estimated line of best fit, regression line, or correlation (strong positive, strong negative, or no correlation) to solve problems; and solve problems involving conceptual understanding of the sample from which the statistics were developed. [S]	**Probability, Statistics, & Data Analysis:** Calculate the average of a list of positive whole numbers Perform a single computation using information from a table or chart Calculate the average of a list of numbers Calculate the average, given the number of data values and the sum of the data values Read tables and graphs Perform computations on data from tables and graphs Calculate the missing data value, given the average and all data values but one Calculate the average, given the frequency counts of all the data values Calculate or use a weighted average
M(DSP)-10-3. Identifies or describes representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)-10-1. [S]	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Interpret and use information from figures, tables, and graphs
M(DSP)-10-4. Uses counting techniques to solve contextualized problems involving combinations or permutations (e.g., organized lists, tables, tree diagrams, models, Fundamental Counting Principle, or others). [S]	**Probability, Statistics, & Data Analysis:** Exhibit knowledge of simple counting techniques Use Venn diagrams in counting Apply counting techniques
M(DSP)-10-5. Solves problems involving experimental or theoretical probability. [S]	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Compute straightforward probabilities for common situations Compute a probability when the event and/or sample space are not given or obvious

[S] = State assessed; all others assessed locally

TABLE 2H

RHODE ISLAND Grade 9–10 Mathematics Content Grade-Level/-Span Expectations	PLAN Mathematics College Readiness Standards
M(DSP)-10-6. In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, research, experimentation) and sampling techniques (e.g., random sample, stratified random sample) to collect the data necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the questions or hypotheses being tested while considering the limitations of the data that could effect interpretations; and when appropriate makes predications, asks new questions, or makes connections to real-world situations.	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs

[S] = State assessed; all others assessed locally

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Number and Operations	
M(N&O)-12-1. Demonstrates conceptual understanding of rational numbers by knowing why a real number is rational if and only if the number's decimal expansion eventually repeats or terminates.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers
M(N&O)-12-2. Demonstrates understanding of the relative magnitude of real numbers by solving problems that involve ordering or comparing any subset of the real numbers.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Order fractions Work with scientific notation Work with squares and square roots of numbers Work problems involving positive integer exponents Work with cubes and cube roots of numbers Apply number properties involving positive/negative numbers Apply rules of exponents
M(N&O)-12-3. *[No GSE at this grade]*	
M(N&O)-12-4. Accurately solves problems involving scientific notation or uses significant digits to assess the precision of an answer. Interprets rational exponents and their relation to radicals; computes by hand in simple cases (e.g., $4^{\frac{3}{2}}$), and using a calculator when appropriate. Interprets numbers given in scientific notation and carries out computations of them with and without a calculator. Solves problems involving compound interest.	**Basic Operations & Applications:** Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings) **Numbers: Concepts & Properties:** Identify a digit's place value Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Work with scientific notation Work with squares and square roots of numbers Work problems involving positive integer exponents Work with cubes and cube roots of numbers Apply number properties involving positive/negative numbers Apply rules of exponents Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers
M(N&O)-12-5. *[No GSE at this grade]*	

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Number and Operations	
M(N&O)-12-6. *[No GSE at this grade]*	
M(N&O)-12-7. Makes appropriate estimates in a given situation by determining the level of accuracy needed and analyzing the accuracy of results.	**Basic Operations & Applications:** Solve routine two-step or three-step arithmetic problems involving concepts such as rate and proportion, tax added, percentage off, and computing with a given average Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings) **Numbers: Concepts & Properties:** Identify a digit's place value Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor
M(N&O)-12-8. Applies properties to determine whether a given subset of numbers is closed under a given arithmetic operation.	**Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Geometry and Measurement	
M(G&M)-12-1. *[No GSE at this grade]*	
M(G&M)-12-2. Creates formal proofs of propositions (e.g., angles, lines, circles, distance, midpoint and polygons including triangle congruence and similarity).	**Graphical Representations:** Comprehend the concept of length on the number line Interpret and use information from graphs in the coordinate plane Use the distance formula Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) **Properties of Plane Figures:** Exhibit some knowledge of the angles associated with parallel lines Exhibit knowledge of basic angle properties and special sums of angle measures (e.g., 90°, 180°, and 360°) Use properties of isosceles triangles Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles Draw conclusions based on a set of conditions
M(G&M)-12-3. *[No GSE at this grade]*	
M(G&M)-12-4. Applies the concepts of congruency by using matrices to represent reflections, translations, and rotations.	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane **Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas
M(G&M)-12-5. Applies the concepts of similarity of right triangles with the trigonometric functions defined as ratios of sides of triangles, and uses the ratios of the sides of special right triangles (30°-60°-90° and 45°-45°-90°) to determine the sine, cosine and tangent (30°,45°, 60°) and solve related problems.	**Properties of Plane Figures:** Apply properties of 30°-60°-90°, 45°-45°-90°, similar, and congruent triangles Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas **Functions:** Express the sine, cosine, and tangent of an angle in a right triangle as a ratio of given side lengths Apply basic trigonometric ratios to solve right-triangle problems Use trigonometric concepts and basic identities to solve problems

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
M(G&M)-12-6. Solves problems involving angles, lengths and areas of polygons by applying the trigonometric formulas (law of sines/cosines, $A = \frac{1}{2}ab\sin C$) ; and applies the appropriate unit of measure.	**Basic Operations & Applications:** Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings) **Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas **Measurement:** Use geometric formulas when all necessary information is given Use relationships involving area, perimeter, and volume of geometric figures to compute another measure Compute the area of composite geometric figures when planning or visualization is required **Functions:** Use trigonometric concepts and basic identities to solve problems
M(G&M)-12-7. Uses informal concepts of successive approximation, upper and lower bounds, and limits in measurement situations (e.g., use successive approximation to find the area of a pond); uses measurement conversion strategies (e.g., unit/dimensional analysis).	**Basic Operations & Applications:** Solve multistep arithmetic problems that involve planning or converting units of measure (e.g., feet per second to miles per hour) Solve word problems containing several rates, proportions, or percentages Solve complex arithmetic problems involving percent of increase or decrease and problems requiring integration of several concepts from pre-algebra and/or pre-geometry (e.g., comparing percentages or averages, using several ratios, and finding ratios in geometry settings) **Measurement:** Use relationships involving area, perimeter, and volume of geometric figures to compute another measure
M(G&M)-12-8. *[No GSE at this grade]*	

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
M(G&M)-12-9. Solves problems involving circles as loci of points in the plane satisfying certain distance requirements, and uses the distance formula to obtain equations for circles.	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane Use the distance formula Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane **Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas Use relationships among angles, arcs, and distances in a circle
M(G&M)-12-10. Demonstrates conceptual understanding of spatial reasoning and visualization by performing and justifying constructions with compass and straightedge or dynamic geometric software.	

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Functions and Algebra	
M(F&A)-12-1. Identifies arithmetic and geometric sequences and finds the nth term; then uses the generalization to find a specific term.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Exhibit knowledge of logarithms and geometric sequences **Expressions, Equations, & Inequalities:** Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving
M(F&A)-12-2. Demonstrates conceptual understanding of linear and nonlinear functions and relations by representing and analyzing functions in several ways; recognizing properties of functions and characteristics properties of families of functions; applying knowledge of functions to interpret, model, and solve problems; analyzing characteristics of classes of functions (polynomial, rational, and exponential) to include domain, range, intercepts, increasing and decreasing intervals and rates of change; representing functions numerically, algebraically, graphically, and verbally (i.e. in written words), recognizing properties of a function from these representations, and transfers information from one representation to another; graphing polynomial, rational and exponential functions, including vertical and horizontal shifts, stretches, and compressions as well as reflections across vertical and horizontal axes; applying knowledge of functions to interpret and understand situations, design mathematical models, and solve problems in mathematics as well as in natural and social sciences.	**Numbers: Concepts & Properties:** Determine when an expression is undefined **Expressions, Equations, & Inequalities:** Evaluate algebraic expressions by substituting integers for unknown quantities Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Identify solutions to simple quadratic equations Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings Solve quadratic equations Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving **Graphical Representations:** Exhibit knowledge of slope Determine the slope of a line from points or equations Match linear graphs with their equations Interpret and use information from graphs in the coordinate plane Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Analyze and draw conclusions based on information from graphs in the coordinate plane **Functions:** Evaluate quadratic functions, expressed in function notation, at integer values Evaluate polynomial functions, expressed in function notation, at integer values Evaluate composite functions at integer values

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
	Write an expression for the composite of two simple functions
M(F&A)-12-3. Demonstrates conceptual understanding of algebraic expressions by manipulating, evaluating, and simplifying algebraic and numerical expressions; adding, subtracting, multiplying and dividing polynomials; adding, subtracting, multiplying and dividing rational expressions; simplifying complex fractions; factoring quadratic and higher degree polynomials, including difference of squares; applying properties of logarithms (e.g., $\log_a b^n = n\log_a b$, $a^{\log_a b} = b$) and converting between logarithmic and exponential forms; manipulating, evaluating, and simplifying expressions involving rational exponents and radicals and converting between expressions with rational exponents and expressions with radicals.	**Numbers: Concepts & Properties:** Apply rules of exponents Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers Exhibit knowledge of logarithms and geometric sequences **Expressions, Equations, & Inequalities:** Exhibit knowledge of basic expressions (e.g., identify an expression for a total as $b + g$) Substitute whole numbers for unknown quantities to evaluate expressions Evaluate algebraic expressions by substituting integers for unknown quantities Add and subtract simple algebraic expressions Perform straightforward word-to-symbol translations Multiply two binomials Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Identify solutions to simple quadratic equations Add, subtract, and multiply polynomials Factor simple quadratics (e.g., the difference of squares and perfect square trinomials) Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings Write expressions that require planning and/or manipulating to accurately model a situation
M(F&A)-12-4. Demonstrates conceptual understanding of equality by solving equations and systems of equations or inequalities and interpreting the solutions algebraically and graphically; by factoring, completing the square, using the quadratic formula, and graphing quadratic functions to solve quadratic equations; solving and interpreting solutions of equations involving polynomial, rational, and radical expressions; analyzing the effect of simplifying radical or rational expressions on the solution set of equations involving such expressions. (e.g., $\frac{x^2}{x} = x$ for $x \neq 0$); finding approximate solutions to equations by graphing each side as a function using technology. [Understand that any equation in x can be interpreted as the equation $f(x) = g(x)$ and interpret the solutions of the equation as the x-value(s) of the intersection point(s) of the graphs of $y = f(x)$ and $y = g(x)$.]; solving 2 × 2 and 3 × 3 systems of linear equations and graphically interprets the solutions; solving systems of linear and quadratic inequalities; solving and graphically interpreting solutions systems of equations involving nonlinear expressions.	**Expressions, Equations, & Inequalities:** Solve equations in the form $x + a = b$, where a and b are whole numbers or decimals Solve one-step equations having integer or decimal answers Solve routine first-degree equations Solve real-world problems using first-degree equations Write expressions, equations, or inequalities with a single variable for common pre-algebra settings (e.g., rate and distance problems and problems that can be solved by using proportions) Identify solutions to simple quadratic equations Factor simple quadratics (e.g., the difference of squares and perfect square trinomials) Solve first-degree inequalities that do not require reversing the inequality sign Manipulate expressions and equations

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
	Write expressions, equations, and inequalities for common algebra settings
	Solve linear inequalities that require reversing the inequality sign
	Solve absolute value equations
	Solve quadratic equations
	Find solutions to systems of linear equations
	Write expressions that require planning and/or manipulating to accurately model a situation
	Write equations and inequalities that require planning, manipulating, and/or solving
	Solve simple absolute value inequalities
	Graphical Representations:
	Determine the slope of a line from points or equations
	Match linear graphs with their equations
	Interpret and use information from graphs in the coordinate plane
	Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle)
	Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$
	Analyze and draw conclusions based on information from graphs in the coordinate plane

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Data, Statistics, and Probability	
M(DSP)-12-1. Interprets a given representation(s) (e.g., regression function including linear, quadratic, and exponential) to analyze the data to make inferences and to formulate, justify, and critique conclusions.	**Probability, Statistics, & Data Analysis:** Perform a single computation using information from a table or chart Read tables and graphs Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs **Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers **Graphical Representations:** Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Analyze and draw conclusions based on information from graphs in the coordinate plane
M(DSP)-12-2. Analyzes patterns, trends, or distributions in data in a variety of contexts by calculating and analyzing measures of dispersion (standard deviation, variance, and percentiles).	**Probability, Statistics, & Data Analysis:** Perform computations on data from tables and graphs Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs
M(DSP)-12-3. Organizes and displays one- and two-variable data using a variety of representations (e.g., box-and-whisker plots, scatter plots, bar graphs, line graphs, circle graphs, histograms, frequency charts, linear, quadratic, and exponential regression functions) to analyze the data to formulate or justify conclusions, make predictions, or to solve problems with or without using technology.	**Probability, Statistics, & Data Analysis:** Perform computations on data from tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs **Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers **Graphical Representations:** Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Analyze and draw conclusions based on information from graphs in the coordinate plane

TABLE 2I

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
M(DSP)-12-4. Uses counting techniques to solve problems in context involving combination or permutations using a variety of strategies (e.g., nCr, nPr, or n!); and finds unions, intersections, and complements of sets.	**Probability, Statistics, & Data Analysis:** Exhibit knowledge of simple counting techniques Use Venn diagrams in counting Apply counting techniques
M(DSP)-12-5. For a probability event in which the sample space may or may not contain equally likely outcomes, predicts the theoretical probability of an event and tests the prediction through experiments and simulations; compares and contrasts theoretical and experimental probabilities; finds the odds of an event and understands the relationship between probability and odds.	**Probability, Statistics, & Data Analysis:** Use the relationship between the probability of an event and the probability of its complement Determine the probability of a simple event Compute straightforward probabilities for common situations Compute a probability when the event and/or sample space are not given or obvious
M(DSP)-12-6. In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, research, experimentation) and sampling techniques (e.g., random sample, stratified random sample) to collect the data necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the questions or hypotheses being tested while considering the limitations of the data that could effect interpretations; and when appropriate makes predications, asks new questions, or makes connections to real-world situations.	**Probability, Statistics, & Data Analysis:** Read tables and graphs Translate from one representation of data to another (e.g., a bar graph to a circle graph) Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs

TABLE 2J

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	**WorkKeys *Applied Mathematics* Skills** (unless otherwise specified)
Number and Operations	
M(N&O)-12-1. Demonstrates conceptual understanding of rational numbers by knowing why a real number is rational if and only if the number's decimal expansion eventually repeats or terminates.	
M(N&O)-12-2. Demonstrates understanding of the relative magnitude of real numbers by solving problems that involve ordering or comparing any subset of the real numbers.	Put the information in the right order before performing calculations Find the best deal using one- and two-step calculations and then comparing results
M(N&O)-12-3. *[No GSE at this grade]*	
M(N&O)-12-4. Accurately solves problems involving scientific notation or uses significant digits to assess the precision of an answer. Interprets rational exponents and their relation to radicals; computes by hand in simple cases (e.g., $4^{\frac{3}{2}}$), and using a calculator when appropriate. Interprets numbers given in scientific notation and carries out computations of them with and without a calculator. Solves problems involving compound interest.	Look up a formula and perform single-step conversions within or between systems of measurement Rearrange a formula before solving a problem Solve problems that include nonlinear functions and/or that involve more than one unknown
M(N&O)-12-5. *[No GSE at this grade]*	
M(N&O)-12-6. *[No GSE at this grade]*	
M(N&O)-12-7. Makes appropriate estimates in a given situation by determining the level of accuracy needed and analyzing the accuracy of results.	
M(N&O)-12-8. Applies properties to determine whether a given subset of numbers is closed under a given arithmetic operation.	

TABLE 2J

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	**WorkKeys *Applied Mathematics* Skills** (unless otherwise specified)
Geometry and Measurement	
M(G&M)-12-1. *[No GSE at this grade]*	
M(G&M)-12-2. Creates formal proofs of propositions (e.g., angles, lines, circles, distance, midpoint and polygons including triangle congruence and similarity).	
M(G&M)-12-3. *[No GSE at this grade]*	
M(G&M)-12-4. Applies the concepts of congruency by using matrices to represent reflections, translations, and rotations.	
M(G&M)-12-5. Applies the concepts of similarity of right triangles with the trigonometric functions defined as ratios of sides of triangles, and uses the ratios of the sides of special right triangles (30°-60°-90° and 45°-45°-90°) to determine the sine, cosine and tangent (30°,45°, 60°) and solve related problems.	
M(G&M)-12-6. Solves problems involving angles, lengths and areas of polygons by applying the trigonometric formulas (law of sines/cosines, $A = \frac{1}{2}ab\sin C$) ; and applies the appropriate unit of measure.	
M(G&M)-12-7. Uses informal concepts of successive approximation, upper and lower bounds, and limits in measurement situations (e.g., use successive approximation to find the area of a pond); uses measurement conversion strategies (e.g., unit/dimensional analysis).	
M(G&M)-12-8. *[No GSE at this grade]*	
M(G&M)-12-9. Solves problems involving circles as loci of points in the plane satisfying certain distance requirements, and uses the distance formula to obtain equations for circles.	
M(G&M)-12-10. Demonstrates conceptual understanding of spatial reasoning and visualization by performing and justifying constructions with compass and straightedge or dynamic geometric software.	

TABLE 2J

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	**WorkKeys *Applied Mathematics* Skills** (unless otherwise specified)
Functions and Algebra	
M(F&A)-12-1. Identifies arithmetic and geometric sequences and finds the nth term; then uses the generalization to find a specific term.	
M(F&A)-12-2. Demonstrates conceptual understanding of linear and nonlinear functions and relations by representing and analyzing functions in several ways; recognizing properties of functions and characteristics properties of families of functions; applying knowledge of functions to interpret, model, and solve problems; analyzing characteristics of classes of functions (polynomial, rational, and exponential) to include domain, range, intercepts, increasing and decreasing intervals and rates of change; representing functions numerically, algebraically, graphically, and verbally (i.e., in written words), recognizing properties of a function from these representations, and transfers information from one representation to another; graphing polynomial, rational and exponential functions, including vertical and horizontal shifts, stretches, and compressions as well as reflections across vertical and horizontal axes; applying knowledge of functions to interpret and understand situations, design mathematical models, and solve problems in mathematics as well as in natural and social sciences.	Solve problems that include nonlinear functions and/or that involve more than one unknown
M(F&A)-12-3. Demonstrates conceptual understanding of algebraic expressions by manipulating, evaluating, and simplifying algebraic and numerical expressions; adding, subtracting, multiplying and dividing polynomials; adding, subtracting, multiplying and dividing rational expressions; simplifying complex fractions; factoring quadratic and higher degree polynomials, including difference of squares; applying properties of logarithms (e.g., $\log_a b^n = n\log_a b$, $a^{\log_a b} = b$) and converting between logarithmic and exponential forms; manipulating, evaluating, and simplifying expressions involving rational exponents and radicals and converting between expressions with rational exponents and expressions with radicals.	Look up a formula and perform single-step conversions within or between systems of measurement Rearrange a formula before solving a problem Solve problems that include nonlinear functions and/or that involve more than one unknown

TABLE 2J

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	**WorkKeys *Applied Mathematics* Skills** (unless otherwise specified)
M(F&A)-12-4. Demonstrates conceptual understanding of equality by solving equations and systems of equations or inequalities and interpreting the solutions algebraically and graphically; by factoring, completing the square, using the quadratic formula, and graphing quadratic functions to solve quadratic equations; solving and interpreting solutions of equations involving polynomial, rational, and radical expressions; analyzing the effect of simplifying radical or rational expressions on the solution set of equations involving such expressions. (e.g., $\frac{x^2}{x} = x$ for $x \neq 0$); finding approximate solutions to equations by graphing each side as a function using technology. [Understand that any equation in x can be interpreted as the equation $f(x) = g(x)$ and interpret the solutions of the equation as the x-value(s) of the intersection point(s) of the graphs of $y = f(x)$ and $y = g(x)$.]; solving 2 × 2 and 3 × 3 systems of linear equations and graphically interprets the solutions; solving systems of linear and quadratic inequalities; solving and graphically interpreting solutions systems of equations involving nonlinear expressions.	Solve problems that include nonlinear functions and/or that involve more than one unknown Rearrange a formula before solving a problem Use two formulas to change from one unit to another within the same system of measurement Use two formulas to change from one unit in one system of measurement to a unit in another system of measurement

TABLE 2J

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	**WorkKeys *Applied Mathematics* Skills** (unless otherwise specified)
Data, Statistics, and Probability	
M(DSP)-12-1. Interprets a given representation(s) (e.g., regression function including linear, quadratic, and exponential) to analyze the data to make inferences and to formulate, justify, and critique conclusions.	
M(DSP)-12-2. Analyzes patterns, trends, or distributions in data in a variety of contexts by calculating and analyzing measures of dispersion (standard deviation, variance, and percentiles).	Apply basic statistical concepts
M(DSP)-12-3. Organizes and displays one- and two-variable data using a variety of representations (e.g., box-and-whisker plots, scatter plots, bar graphs, line graphs, circle graphs, histograms, frequency charts, linear, quadratic, and exponential regression functions) to analyze the data to formulate or justify conclusions, make predictions, or to solve problems with or without using technology.	***Locating Information* Skills** Find several pieces of information in one or two graphics Fill in one or two pieces of information that are missing from a graphic Find several pieces of information in one or two graphics Understand how graphics are related to each other Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics Sort through distracting information Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions
M(DSP)-12-4. Uses counting techniques to solve problems in context involving combination or permutations using a variety of strategies (e.g., nCr, nPr, or n!); and finds unions, intersections, and complements of sets.	
M(DSP)-12-5. For a probability event in which the sample space may or may not contain equally likely outcomes, predicts the theoretical probability of an event and tests the prediction through experiments and simulations; compares and contrasts theoretical and experimental probabilities; finds the odds of an event and understands the relationship between probability and odds.	

TABLE 2J

RHODE ISLAND Grades 11–12 Mathematics Content Grade-Level/-Span Expectations	**WorkKeys *Applied Mathematics* Skills** (unless otherwise specified)
M(DSP)-12-6. In response to a teacher or student generated question or hypothesis decides the most effective method (e.g., survey, observation, research, experimentation) and sampling techniques (e.g., random sample, stratified random sample) to collect the data necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the questions or hypotheses being tested while considering the limitations of the data that could effect interpretations; and when appropriate makes predications, asks new questions, or makes connections to real-world situations.	

TABLE 2K

RHODE ISLAND Advanced Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Number and Operations	
M(N&O)-AM-1. Demonstrates conceptual understanding of the real number system as an extension of the rational numbers by representing real numbers as infinite decimal expansions (that provide successive rational approximations to the number) and as points on a number line. Determines whether the decimal expansion of a rational number given in fractional form eventually repeats or terminates (without using a calculator).	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers
M(N&O)-AM-2. *[No GSE at this grade]*	
M(N&O)-AM-3. *[No standard listed at this level]*	
M(N&O)-AM-4. Accurately solves problems and demonstrates understanding of complex numbers by interpreting them geometrically and by computing with them (e, g., adding, multiplying, dividing, finding the nth root, or by finding conjugates). Understands complex numbers as an extension of the real numbers (e.g., arising in solutions of polynomial equations). Manipulates complex numbers using rectangular and polar coordinates. Knows the fundamental theorem of algebra and knows that non-constant polynomials always factor into linear factors over the complex numbers.	**Numbers: Concepts & Properties:** Exhibit some knowledge of the complex numbers Multiply two complex numbers Apply properties of complex numbers
M(N&O)-AM-5. *[No GSE at this grade]*	
M(N&O)-AM-6. *[No GSE at this grade]*	
M(N&O)-AM-7. *[No GSE at this grade]*	
M(N&O)-AM-8. Applies properties to add and multiply numerical matrices with attention to the arithmetic properties of these operations. Algebraically and geometrically interpret vectors, vector addition, and scalar multiplication in the plane, with attention to arithmetic properties. Knows and uses the principle of mathematical induction.	**Probability, Statistics, & Data Analysis:** Analyze and draw conclusions based on information from figures, tables, and graphs **Graphical Representations:** Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane **Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas

TABLE 2K

RHODE ISLAND Advanced Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Geometry and Measurement	
M(G&M)-AM-1. *[No GSE at this grade]*	
M(G&M)-AM-2. Extends and deepens knowledge and usage of proofs and proof techniques; and uses geometric models to represent and distinguish between Euclidean and non-Euclidean Systems.	**Properties of Plane Figures:** Draw conclusions based on a set of conditions
M(G&M)-AM-3. *[No GSE at this grade]*	
M(G&M)-AM-4. *[No GSE at this grade]*	
M(G&M)-AM-5. *[No GSE at this grade]*	
M(G&M)-AM-6. Solves problems involving volume using Cavalieri's principle and derives and uses formulas for lengths of arcs and areas of sectors and segments of circles.	**Properties of Plane Figures:** Use relationships among angles, arcs, and distances in a circle **Measurement:** Use relationships involving area, perimeter, and volume of geometric figures to compute another measure
M(G&M)-AM-7. Uses radian measure appropriately when solving problems; converts between radian measure and degree measure; and understands why radian measure is useful.	**Properties of Plane Figures:** Use relationships among angles, arcs, and distances in a circle **Functions:** Use trigonometric concepts and basic identities to solve problems Exhibit knowledge of unit circle trigonometry
M(G&M)-AM-8. *[No GSE at this grade]*	
M(G&M)-AM-9. Solves problems using analytic geometry (including three-dimensions) and circular trigonometry (e.g., find the equation of a circle inscribed in a triangle; find the distance between opposite vertices in a rectangular solid); explores and interprets the characteristics of conic sections graphically and algebraically including understanding how different planar slices of a double cone yield different conic sections; knows the characterization of conic sections as loci of points in the plane satisfying certain distance require-ments, and uses the distance formula to obtain equations for the conic sections.	**Graphical Representations:** Interpret and use information from graphs in the coordinate plane Use the distance formula Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane **Properties of Plane Figures:** Solve multistep geometry problems that involve integrating concepts, planning, visualization, and/or making connections with other content areas
M(G&M)-AM-10. *[No GSE at this grade]*	

TABLE 2K

RHODE ISLAND Advanced Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Functions and Algebra	
M(F&A)-AM-1. Identifies and computes partial sums of infinite arithmetic and geometric sequences, determines when an infinite geometric series converges, and finds its sum. Connects arithmetic and geometric sequences to linear and exponential functions, respectively.	**Numbers: Concepts & Properties:** Exhibit knowledge of elementary number concepts including rounding, the ordering of decimals, pattern identification, absolute value, primes, and greatest common factor Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers Exhibit knowledge of logarithms and geometric sequences **Graphical Representations:** Solve problems integrating multiple algebraic and/or geometric concepts
M(F&A)-AM-2. Demonstrates conceptual understanding of linear and nonlinear functions and relations from a set-theoretic perspective, and operations on functions including composition and inverse including computing inverses algebraically; analyzing characteristics of classes of functions and inverse functions (exponential, logarithmic, trigonometric) to include domain, range, intercepts, increasing and decreasing intervals and rates of change, periodicity, end behavior, maximum and minimum values, continuity, and asymptotes; analyzing properties of functions including injectivity (1-1), surjectivity (onto), critical points and inflection points. Determine graphically and analytically whether a function is even, odd or neither; analyzing informally the idea of continuity and limits; recognizing properties of families of functions including logarithmic and trigonometric, and graphs them; analyzing domain restriction and the effects of it on the function and its properties.	**Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers **Graphical Representations:** Interpret and use information from graphs in the coordinate plane Recognize special characteristics of parabolas and circles (e.g., the vertex of a parabola and the center or radius of a circle) Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$ Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane **Functions:** Write an expression for the composite of two simple functions Match graphs of basic trigonometric functions with their equations
M(F&A)-AM-3. Demonstrates conceptual understanding of algebraic expressions by using the remainder theorem, the factor theorem and rational root theorem for polynomials; by factoring polynomials over integer, rational, real and complex numbers.	**Numbers: Concepts & Properties:** Draw conclusions based on number concepts, algebraic properties, and/or relationships between expressions and numbers Apply properties of complex numbers **Expressions, Equations, & Inequalities:** Manipulate expressions and equations Solve quadratic equations Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving

TABLE 2K

RHODE ISLAND Advanced Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
M(F&A)-AM-4. Demonstrates conceptual understanding of equality by solving equations and verifying identities involving trigonometric expressions; solving, graphing and interpreting equations involving exponential and logarithmic expressions; interpreting systems as matrix equations and solving them by computing the appropriate matrix inverse and multiplication, with or without technology; applying the intermediate value theorem to find exact or approximate solutions of equations or zeros of continuous functions.	**Numbers: Concepts & Properties:** Exhibit knowledge of logarithms and geometric sequences **Expressions, Equations, & Inequalities:** Manipulate expressions and equations Write expressions, equations, and inequalities for common algebra settings Write expressions that require planning and/or manipulating to accurately model a situation Write equations and inequalities that require planning, manipulating, and/or solving **Graphical Representations:** Interpret and use information from graphs in the coordinate plane Solve problems integrating multiple algebraic and/or geometric concepts Analyze and draw conclusions based on information from graphs in the coordinate plane **Functions:** Use trigonometric concepts and basic identities to solve problems

TABLE 2K

RHODE ISLAND Advanced Mathematics Content Grade-Level/-Span Expectations	ACT Mathematics College Readiness Standards
Data, Statistics, and Probability	
M(DSP)-AM-1. *[No GSE at this grade]*	
M(DSP)-AM-2. Analyzes and interprets measures of dispersion (standard deviation, variance, and percentiles) and central tendency for the normal distribution; and interprets the correlation coefficient and the coefficient of determination in the context of data.	**Probability, Statistics, & Data Analysis:** Manipulate data from tables and graphs Interpret and use information from figures, tables, and graphs Analyze and draw conclusions based on information from figures, tables, and graphs
M(DSP)-AM-3. Uses technology to explore the method of least squares and median-median for linear regression.	
M(DSP)-AM-4. *[No GSE at this grade]*	
M(DSP)-AM-5. Solves probability problems (e.g., by applying concepts of counting, random variables, independence/dependence of events, and conditional probability).	**Probability, Statistics, & Data Analysis:** Apply counting techniques Compute a probability when the event and/or sample space are not given or obvious Exhibit knowledge of conditional and joint probability
M(DSP)-AM-6. *[No GSE at this grade]*	

SUPPLEMENT
TABLES 3A–3E:

SCIENCE

TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 1: Formulating Questions and Hypothesizing	
Standard: Task must provide students a scenario that describes objects, organisms, or events to which the student will respond. The task will provide the student with the opportunity to develop their own testable questions or predictions based upon their experimental data, observations, and scientific knowledge. The task could include opportunities for the student to refine and refocus questions or hypotheses related to the scenario using their scientific knowledge and information	
Inquiry Construct 1. Analyze information from observations, research, or experimental data for the purpose of formulating a question, hypothesis, or prediction: **a.** Appropriate for answering with scientific investigation **b.** For answering using scientific knowledge Items addressing this construct require students to: • analyze scientific data and use that information to generate a testable question or a prediction that includes a cause and effect relationship; • generate a question or a prediction which is reasonable in terms of available evidence; • support their question or prediction with a scientific explanation; • refine or refocus a question or hypothesis using experimental data, research, or scientific knowledge.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion
Inquiry Construct 2. Construct coherent argument in support of a question, hypothesis, prediction Items addressing this construct require students to: • identify evidence that supports or does not support a question, hypothesis or prediction; • explain the cause and effect relationship within the hypothesis or prediction; • use a logical argument to explain how the hypothesis or prediction is connected to a scientific concept, or observation.	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 1: Formulating Questions and Hypothesizing	
Inquiry Construct 3. Make and describe observations in order to ask questions, hypothesize, make predictions related to topic Items addressing this construct require students to: • connect observations to a question or prediction.	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 2: Planning and Critiquing of Investigations	
Standard: The task will require students to plan or analyze an experiment or investigation based upon questions, hypothesis, or predictions derived from the scenario. An experiment must provide students with the opportunity to identify and control variables. The task will provide opportunities for students to think critically about experiments and investigations and may ask students to propose alternatives.	
Inquiry Construct 4. Identify information/evidence that needs to be collected in order to answer the question, hypothesis, prediction Items addressing this construct require students to: • identify the types of evidence that should be gathered to answer the question, or support or refute the prediction; • identify the variables that may affect the outcome of the experiment or investigation; • design an appropriate format for recording data; • evaluate multiple data sets to determine which data are relevant to the question, hypothesis or prediction.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 2: Planning and Critiquing of Investigations	
Inquiry Construct 5. Develop an organized and logical approach to investigating the question, including controlling variables Items addressing this construct require students to: • develop a procedure to gather sufficient evidence (including multiple trials) to answer the question, or test the hypothesis, or prediction; • develop a procedure that lists steps sequentially and logically; • explain which variable will be manipulated or changed (independent) and which variable will be affected by those changes (dependent); • identify variables that will be kept constant throughout the investigation; • use scientific terminology that supports the identified procedures; • evaluate the organization and logical approach of a given procedure including variables, controls, materials, and tools; • evaluate investigation design, including opportunities to collect appropriate and sufficient data.	**Interpretation of Data:** Understand basic scientific terminology **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment
Inquiry Construct 6. Provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation Items addressing this construct require students to: • explain why the materials, tools, procedure, or scale for a task are appropriate or are inappropriate for the investigation. • evaluate the investigation for the safe and ethical considerations of the materials, tools, and procedures.	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 3: Conducting Investigations	
Standard: The procedure requires the student to demonstrate skills (observing, measuring, basic skills involving fine motor movement) and mathematical understanding. The materials involved in the investigation are authentic to the task required. The procedure provides the student with an opportunity to collect sufficient data to investigate the question, prediction/hypothesis, or relationships. Student is required to organize and represent qualitative or quantitative data. Student is required to summarize data to form a logical argument.	
Inquiry Construct 7. Follow procedures for collecting and recording qualitative or quantitative data, using equipment or measurement devices accurately Items addressing this construct require students to: • record precise data and observations that are consistent with the procedure of the investigation; • include appropriate units of all measurements; • use appropriate measurement tools correctly to collect data; • record and label relevant details within a scientific drawing.	**Interpretation of Data:** Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Translate information into a table, graph, or diagram **Scientific Investigation:** Understand the methods and tools used in a simple experiment
Inquiry Construct 8. Use accepted methods for organizing, representing, and manipulating data Items addressing this construct require students to: • represent data accurately in an appropriate graph/table/chart; • include titles, labels, keys or symbols as needed; • select a scale appropriate for the range of data to be plotted; • use scientific terminology to label representations; • identify relationships among variables based upon evidence.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram
Inquiry Construct 9. Collect sufficient data to study question, hypothesis, or relationships Items addressing this construct require students to: • show understanding of the value of multiple trials; • relate data to original question, hypothesis or prediction; • determine if the quantity of data is sufficient to answer the question or support or refute the hypothesis or prediction.	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 3: Conducting Investigations	
Inquiry Construct 10. Summarize results based on data Items addressing this construct require students to: • consider all data when developing an explanation/ conclusion; • identify patterns and trends in data.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 4: Developing and Evaluating Explanations	
Standard Task must provide the opportunity for students to use data to construct an explanation based on their science knowledge and evidence from experimentation or investigation. The task requires students to use qualitative and quantitative data to communicate conclusions and support/refute prediction/hypothesis.	
Inquiry Construct 11. Analyze data, including determining if data are relevant, artifact, irrelevant, or anomalous Items addressing this construct require students to: • identify data relevant to the task or question; • identify factors that may affect experimental results (e.g., variables, experimental error, environmental conditions); • classify data into meaningful categories; • compare experimental data to accepted scientific data provided as part of the task; • use mathematical and statistical techniques to analyze data; • provide a reasonable explanation that accurately reflects data; • use content understanding to question data that might seem inaccurate; • evaluate the significance of experimental data.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram Interpolate between data points in a table or graph Identify and/or use a simple (e.g., linear) mathematical relationship between data **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 4: Developing and Evaluating Explanations	
Inquiry Construct 12. Use evidence to support and justify interpretations and conclusions or explain how the evidence refutes the hypothesis Items addressing this construct require students to: • identify and explain data, interpretations or conclusions that seem inaccurate; • use evidence to support or refute question or hypothesis; • use evidence to justify an interpretation of data or trends; • identify and explain differences or similarities between predictions and experimental data; • provide a reasonable explanation that accurately reflects data; • use mathematical computations to determine or support conclusions.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram Identify and/or use a simple (e.g., linear) mathematical relationship between data **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3A

RHODE ISLAND Grade 8 Science Process (GDIT) Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Broad Area 4: Developing and Evaluating Explanations	
Inquiry Construct 13. Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations Items addressing this construct require students to: • explain how experimental results compare to accepted scientific understanding; • recommend changes to procedures to produce data that would provide sufficient data and more accurate analysis; • identify and justify additional data that would strengthen an investigation; • connect the investigation or model to an authentic situation; • propose and evaluate new questions, predictions, next steps or technology for further investigations or alternative explanations; • account for limitations and/or sources of error within the experimental design; • apply experimental results to a new problem or situation.	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Predict the results of an additional trial or measurement in an experiment Determine the experimental conditions that would produce specified results **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 1: Formulating Questions and Hypothesizing	
Standard: Task must provide students a scenario with information and detail sufficient for the student to create a testable prediction or hypothesis. Students will draw upon their science knowledge base to advance a prediction or hypothesis using appropriate procedures and controls; this may include an experimental design.	
Inquiry Construct 1. Analyze information from observations, research, or experimental data for the purpose of formulating a question, hypothesis, or prediction. **a.** Appropriate for answering with scientific investigation **b.** For answering using scientific knowledge Items addressing this construct require students to: • analyze scientific data and use that information to generate a testable question, hypothesis, or prediction that includes a cause and effect relationship; • generate a question, hypothesis or a prediction which is reasonable in terms of available evidence; • show connections between hypothesis or prediction and scientific knowledge, observations, or research; • support their question, hypothesis, or prediction with a scientific explanation; • refine or refocus a question or hypothesis using experimental data, research, or scientific knowledge.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Scientific Investigation:** Determine the hypothesis for an experiment **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion Determine whether new information supports or weakens a model, and why
Inquiry Construct 2. Construct coherent argument in support of a question, hypothesis, prediction. Items addressing this construct require students to: • identify evidence that supports or does not support a question, hypothesis or prediction • explain the cause and effect relationship within the hypothesis or prediction; • use a logical argument to support the hypothesis or prediction using scientific concepts, principles, or observations.	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 1: Formulating Questions and Hypothesizing	
Inquiry Construct 3. Make and describe observations in order to ask questions, hypothesize, make predictions related to topic. Items addressing this construct require students to: • connect observations and data to a question, hypothesis, or prediction.	**Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 2: Planning and Critiquing of Investigations	
Standard: The task will require students to plan or analyze an experiment or investigation based upon questions, hypothesis, or predictions derived from the scenario. An experiment must provide students with the opportunity to identify and control variables. The task will provide opportunities for students to think critically and construct an argument about experiments and investigations and may ask students to propose alternatives. Task will require the student to identify and justify the appropriate use of tools, equipment, materials, and procedures involved in the experiment.	
Inquiry Construct 4. Identify information/evidence that needs to be collected in order to answer the question, hypothesis, prediction Items addressing this construct require students to: • identify the types of evidence that should be gathered to answer the question, or support or refute the hypothesis or prediction; • identify the variables that may affect the outcome of the experiment or investigation; • design an appropriate format for recording data and include relevant technology; • evaluate multiple data sets to determine which data are relevant to the question, hypothesis or prediction.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Determine the hypothesis for an experiment **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 2: Planning and Critiquing of Investigations	
Inquiry Construct 5. Develop an organized and logical approach to investigating the question, including controlling variables Items addressing this construct require students to: • develop a procedure to gather sufficient evidence (including multiple trials) to answer the question, or test the hypothesis, or prediction; • develop a procedure that lists steps sequentially and logically and incorporates the use of appropriate technology; • explain which variable will be manipulated or changed (independent) and which variable will be affected by those changes (dependent); • identify variables that will be kept constant throughout the investigation; • distinguish between the control group and the experimental group in an investigation; • use scientific terminology that supports the identified procedures; • evaluate the organization and logical approach of a given procedure including variables, controls, materials, and tools. • evaluate investigation design, including opportunities to collect appropriate and sufficient data.	**Interpretation of Data:** Understand basic scientific terminology **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Identify a control in an experiment Determine the hypothesis for an experiment
Inquiry Construct 6. Provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation Items addressing this construct require students to: • explain why the materials, tools, procedure, or scale for a task are appropriate or inappropriate for the investigation. • evaluate the investigation for the safe and ethical considerations of the materials, tools, and procedures.	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 3: Conducting Investigations	
Standard: The procedure requires the student to collect data through observation, inference, and prior scientific knowledge. Mathematics is required for the student to determine and report data. The task scenario is authentic to the realm of the student. The task requires the student to collect sufficient data to investigate the question, prediction/ hypothesis, or relationships. Student is required to organize and represent qualitative or quantitative data. Student is required to summarize data to form a logical argument.	
Inquiry Construct 7. Follow procedures for collecting and recording qualitative or quantitative data, using equipment or measurement devices accurately Items addressing this construct require students to: • record precise data and observations that are consistent with the procedure of the investigation; • include appropriate units of all measurements; • use appropriate measurement tools correctly to collect data; record and label relevant details within a scientific drawing.	**Interpretation of Data:** Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Translate information into a table, graph, or diagram **Scientific Investigation:** Understand the methods and tools used in a simple experiment
Inquiry Construct 8. Use accepted methods for organizing, representing, and manipulating data Items addressing this construct require students to: • represent data accurately in an appropriate graph/table/ chart; • include titles, labels, keys or symbols as needed; • select a scale appropriate for the range of data to be plotted; • use scientific terminology to label representations; • identify relationships among variables based upon evidence.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram
Inquiry Construct 9. Collect sufficient data to study question, hypothesis, or relationships Items addressing this construct require students to: • show understanding of the value of multiple trials • relate data to original question, hypothesis or prediction; • determine if the quantity of data is sufficient to answer the question or support or refute the hypothesis or prediction.	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 3: Conducting Investigations	
Inquiry Construct 10. Summarize results based on data Items addressing this construct require students to: • consider all data when developing an explanation/ conclusion; • identify patterns and trends in data.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a simple hypothesis, prediction, or conclusion that is supported by two or more data presentations or models Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

= Measured by ACT Science Test
_____ = Content sampled by ACT Science Test

TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 4: Developing and Evaluating Explanations	
Standard: Task must provide the opportunity for students to use data to construct an explanation based on their science knowledge and evidence from experiment or investigation. The task requires students to use qualitative and quantitative data to communicate conclusions and support/ refute prediction/hypothesis. The task provides students the opportunity to recognize and analyze alternative methods and models to evaluate other plausible explanations.	
Inquiry Construct 11. Analyze data, including determining if data are relevant, artifact, irrelevant, or anomalous Items addressing this construct require students to: • identify data relevant to the task or question; • identify factors that may affect experimental results (e.g., variables, experimental error, environmental conditions); • analyze data and sort into meaningful categories; • compare experimental data to accepted scientific data provided as part of the task; • use mathematical and statistical techniques to analyze data; • provide a reasonable explanation that accurately reflects data; • use content understanding to question data that might seem inaccurate • evaluate the significance of experimental data.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram Interpolate between data points in a table or graph Identify and/or use a simple (e.g., linear) mathematical relationship between data **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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_____ = Content sampled by ACT Science Test

TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 4: Developing and Evaluating Explanations	
Inquiry Construct 12. Use evidence to support and justify interpretations and conclusions or explain how the evidence refutes the hypothesis Items addressing this construct require students to: • identify and explain data, interpretations or conclusions that seem inaccurate; • use evidence to support or refute question or hypothesis; • use evidence to justify an interpretation of data or trend; • identify and explain differences or similarities between hypothesis and predictions and experimental data; • use evidence to justify a conclusion or explanation based on experimental data; • use mathematical computations to determine or support conclusions; • evaluate potential bias in the interpretation of evidence.	**Interpretation of Data:** Select a single piece of data (numerical or nonnumerical) from a simple data presentation (e.g., a table or graph with two or three variables; a food web diagram) Identify basic features of a table, graph, or diagram (e.g., headings, units of measurement, axis labels) Select two or more pieces of data from a simple data presentation Understand basic scientific terminology Find basic information in a brief body of text Determine how the value of one variable changes as the value of another variable changes in a simple data presentation Compare or combine data from a simple data presentation (e.g., order or sum data from a table) Translate information into a table, graph, or diagram Interpolate between data points in a table or graph Identify and/or use a simple (e.g., linear) mathematical relationship between data **Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Determine whether given information supports or contradicts a simple hypothesis or conclusion, and why Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3B

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	ACT Science College Readiness Standards
Broad Area 4: Developing and Evaluating Explanations	
Inquiry Construct 13. Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations Items addressing this construct require students to: • explain how experimental results compare to accepted scientific understanding; • recommend changes to procedures to produce data that would provide sufficient data and more accurate analysis; • identify and justify additional data that would strengthen an investigation; • connect the investigation or model to an authentic situation; • propose and evaluate new questions, predictions, next steps or technology for further investigations or alternative explanations; • account for limitations and/or sources of error within the experimental design; • apply experimental results to a new problem or situation; • consider the impact (safety, ethical, social, civic, economic, environmental) of additional investigations.	**Scientific Investigation:** Understand the methods and tools used in a simple experiment Understand a simple experimental design Predict the results of an additional trial or measurement in an experiment Determine the experimental conditions that would produce specified results Determine the hypothesis for an experiment Identify an alternate method for testing a hypothesis Understand precision and accuracy issues Predict how modifying the design or methods of an experiment will affect results Identify an additional trial or experiment that could be performed to enhance or evaluate experimental results **Evaluation of Models, Inferences, and Experimental Results:** Select a simple hypothesis, prediction, or conclusion that is supported by a data presentation or a model Select a data presentation or a model that supports or contradicts a hypothesis, prediction, or conclusion

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TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	**WorkKeys *Locating Information* Skills**
Broad Area 1: Formulating Questions and Hypothesizing	
Standard: Task must provide students a scenario with information and detail sufficient for the student to create a testable prediction or hypothesis. Students will draw upon their science knowledge base to advance a prediction or hypothesis using appropriate procedures and controls; this may include an experimental design.	
Inquiry Construct 1. Analyze information from observations, research, or experimental data for the purpose of formulating a question, hypothesis, or prediction. **a.** Appropriate for answering with scientific investigation **b.** For answering using scientific knowledge Items addressing this construct require students to: • analyze scientific data and use that information to generate a testable question, hypothesis, or prediction that includes a cause and effect relationship; • generate a question, hypothesis or a prediction which is reasonable in terms of available evidence; • show connections between hypothesis or prediction and scientific knowledge, observations, or research; • support their question, hypothesis, or prediction with a scientific explanation; • refine or refocus a question or hypothesis using experimental data, research, or scientific knowledge.	
Inquiry Construct 2. Construct coherent argument in support of a question, hypothesis, prediction. Items addressing this construct require students to: • identify evidence that supports or does not support a question, hypothesis or prediction • explain the cause and effect relationship within the hypothesis or prediction; • use a logical argument to support the hypothesis or prediction using scientific concepts, principles, or observations.	
Inquiry Construct 3. Make and describe observations in order to ask questions, hypothesize, make predictions related to topic. Items addressing this construct require students to: • connect observations and data to a question, hypothesis, or prediction.	

TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	WorkKeys *Locating Information* Skills
Broad Area 2: Planning and Critiquing of Investigations	
Standard: The task will require students to plan or analyze an experiment or investigation based upon questions, hypothesis, or predictions derived from the scenario. An experiment must provide students with the opportunity to identify and control variables. The task will provide opportunities for students to think critically and construct an argument about experiments and investigations and may ask students to propose alternatives. Task will require the student to identify and justify the appropriate use of tools, equipment, materials, and procedures involved in the experiment.	
Inquiry Construct 4. Identify information/evidence that needs to be collected in order to answer the question, hypothesis, prediction Items addressing this construct require students to: • identify the types of evidence that should be gathered to answer the question, or support or refute the hypothesis or prediction; • identify the variables that may affect the outcome of the experiment or investigation; • design an appropriate format for recording data and include relevant technology; • evaluate multiple data sets to determine which data are relevant to the question, hypothesis or prediction.	Find several pieces of information in one or two graphics Understand how graphics are related to each other Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics Sort through distracting information Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions

TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	WorkKeys *Locating Information* Skills
Broad Area 2: Planning and Critiquing of Investigations	
Inquiry Construct 5. Develop an organized and logical approach to investigating the question, including controlling variables Items addressing this construct require students to: • develop a procedure to gather sufficient evidence (including multiple trials) to answer the question, or test the hypothesis, or prediction; • develop a procedure that lists steps sequentially and logically and incorporates the use of appropriate technology; • explain which variable will be manipulated or changed (independent) and which variable will be affected by those changes (dependent); • identify variables that will be kept constant throughout the investigation; • distinguish between the control group and the experimental group in an investigation; • use scientific terminology that supports the identified procedures; • evaluate the organization and logical approach of a given procedure including variables, controls, materials, and tools. • evaluate investigation design, including opportunities to collect appropriate and sufficient data.	
Inquiry Construct 6. Provide reasoning for appropriateness of materials, tools, procedures, and scale used in the investigation Items addressing this construct require students to: • explain why the materials, tools, procedure, or scale for a task are appropriate or inappropriate for the investigation. • evaluate the investigation for the safe and ethical considerations of the materials, tools, and procedures.	

TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	WorkKeys *Locating Information* Skills
Broad Area 3: Conducting Investigations	
Standard: The procedure requires the student to collect data through observation, inference, and prior scientific knowledge. Mathematics is required for the student to determine and report data. The task scenario is authentic to the realm of the student. The task requires the student to collect sufficient data to investigate the question, prediction/ hypothesis, or relationships. Student is required to organize and represent qualitative or quantitative data. Student is required to summarize data to form a logical argument.	
Inquiry Construct 7. Follow procedures for collecting and recording qualitative or quantitative data, using equipment or measurement devices accurately Items addressing this construct require students to: • record precise data and observations that are consistent with the procedure of the investigation; • include appropriate units of all measurements; • use appropriate measurement tools correctly to collect data; record and label relevant details within a scientific drawing.	
Inquiry Construct 8. Use accepted methods for organizing, representing, and manipulating data Items addressing this construct require students to: • represent data accurately in an appropriate graph/table/ chart; • include titles, labels, keys or symbols as needed; • select a scale appropriate for the range of data to be plotted; • use scientific terminology to label representations; • identify relationships among variables based upon evidence.	Find several pieces of information in one or two graphics Understand how graphics are related to each other Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics Sort through distracting information Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions
Inquiry Construct 9. Collect sufficient data to study question, hypothesis, or relationships Items addressing this construct require students to: • show understanding of the value of multiple trials • relate data to original question, hypothesis or prediction; • determine if the quantity of data is sufficient to answer the question or support or refute the hypothesis or prediction.	

TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	**WorkKeys *Locating Information* Skills**
Broad Area 3: Conducting Investigations	
Inquiry Construct 10. Summarize results based on data Items addressing this construct require students to: • consider all data when developing an explanation/ conclusion; • identify patterns and trends in data.	Find one or two pieces of information in a graphic Fill in one or two pieces of information that are missing from a graphic Find several pieces of information in one or two graphics Understand how graphics are related to each other Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics Sort through distracting information Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions

TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	WorkKeys *Locating Information* Skills
Broad Area 4: Developing and Evaluating Explanations	
Standard: Task must provide the opportunity for students to use data to construct an explanation based on their science knowledge and evidence from experiment or investigation. The task requires students to use qualitative and quantitative data to communicate conclusions and support/ refute prediction/hypothesis. The task provides students the opportunity to recognize and analyze alternative methods and models to evaluate other plausible explanations.	
Inquiry Construct 11. Analyze data, including determining if data are relevant, artifact, irrelevant, or anomalous Items addressing this construct require students to: • identify data relevant to the task or question; • identify factors that may affect experimental results (e.g., variables, experimental error, environmental conditions); • analyze data and sort into meaningful categories; • compare experimental data to accepted scientific data provided as part of the task; • use mathematical and statistical techniques to analyze data; • provide a reasonable explanation that accurately reflects data; • use content understanding to question data that might seem inaccurate • evaluate the significance of experimental data.	Find one or two pieces of information in a graphic Fill in one or two pieces of information that are missing from a graphic Find several pieces of information in one or two graphics Understand how graphics are related to each other Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics Sort through distracting information Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions
Inquiry Construct 12. Use evidence to support and justify interpretations and conclusions or explain how the evidence refutes the hypothesis Items addressing this construct require students to: • identify and explain data, interpretations or conclusions that seem inaccurate; • use evidence to support or refute question or hypothesis; • use evidence to justify an interpretation of data or trend; • identify and explain differences or similarities between hypothesis and predictions and experimental data; • use evidence to justify a conclusion or explanation based on experimental data; • use mathematical computations to determine or support conclusions; • evaluate potential bias in the interpretation of evidence.	Summarize information from one or two straightforward graphics Identify trends shown in one or two straightforward graphics Compare information and trends shown in one or two straightforward graphics Summarize information from one or more detailed graphics Identify trends shown in one or more detailed or complicated graphics Compare information and trends from one or more complicated graphics Draw conclusions based on one complicated graphic or several related graphics Apply information from one or more complicated graphics to specific situations Use the information to make decisions

TABLE 3C

RHODE ISLAND Grade 11 Science Process (GDIT) Grade-Level/-Span Expectations	**WorkKeys *Locating Information* Skills**
Broad Area 4: Developing and Evaluating Explanations	
Inquiry Construct 13. Communicate how scientific knowledge applies to explain results, propose further investigations, or construct and analyze alternative explanations Items addressing this construct require students to: • explain how experimental results compare to accepted scientific understanding; • recommend changes to procedures to produce data that would provide sufficient data and more accurate analysis; • identify and justify additional data that would strengthen an investigation; • connect the investigation or model to an authentic situation; • propose and evaluate new questions, predictions, next steps or technology for further investigations or alternative explanations; • account for limitations and/or sources of error within the experimental design; • apply experimental results to a new problem or situation; • consider the impact (safety, ethical, social, civic, economic, environmental) of additional investigations.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Life Science	
LS 1. All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).	
LS1 (5–8) INQ+SAE-1. Using data and observations about the biodiversity of an ecosystem make predictions or draw conclusions about how the diversity contributes to the stability of the ecosystem.	
LS1 (7–8)-1. Students demonstrate understanding of biodiversity by… **1a.** giving examples of adaptations or behaviors that are specific to a niche (role) within an ecosystem. **1b.** explaining how organisms with different structures and behaviors have roles that contribute to each other's survival and the stability of the ecosystem.	
LS1 (5–8) SAE+FAF-2. Describe or compare how different organisms have mechanisms that work in a coordinated way to obtain energy, grow, move, respond, provide defense, enable reproduction, or maintain internal balance (e.g., cells, tissues, organs and systems).	
LS1 (7–8)-2. Students demonstrate understanding of structure and function-survival requirements by… **2a.** explaining how the cell, as the basic unit of life, has the same survival needs as an organism (i.e., obtain energy, grow, eliminate waste, reproduce, provide for defense). **2b.** observing and describing (e.g., drawing, labeling) individual cells as seen through a microscope targeting cell membrane, cell wall, nucleus, and chloroplasts. **2c.** observing, describing and charting the growth, motion, responses of living organisms	
LS1 (5–8) POC-3. Compare and contrast sexual reproduction with asexual reproduction.	
LS1 (7–8)-3. Students demonstrate an understanding of reproduction by… **3a.** explaining reproduction as a fundamental process by which the new individual receives genetic information from parent(s). **3b.** describing forms of asexual reproduction that involve the genetic contribution of only one parent (e.g., binary fission, budding, vegetative propagation, regeneration). **3c.** describing sexual reproduction as a process that combines genetic material of two parents to produce a new organism (e.g., sperm/egg, pollen/ova)	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Life Science	
LS1 (5–8) FAF-4. Explain relationships between or among the structure and function of the cells, tissues, organs, and organ systems in an organism.	
LS1 (7–8)-4. Students demonstrate understanding of differentiation by… **4a.** explaining that specialized cells perform specialized functions (e.g., muscle cells contract, nerve cells transmit impulses, skin cells provide protection). **4b.** comparing individual cells of tissues and recognizing the similarities of cells and how they work together to perform specific functions. **4c.** explaining how each type of cell, tissue, and organ has a distinct structure and set of functions that serve the organism as a whole.	
LS 2. Matter cycles and energy flows through an ecosystem.	
LS2 (5–8) INQ+SAE-5. Using data and observations, predict outcomes when abiotic/biotic factors are changed in an ecosystem.	
LS2 (7–8)-5. Students demonstrate an understanding of equilibrium in an ecosystem by… **5a.** identifying which biotic (e.g., bacteria, fungi, plants, animals) and abiotic (e.g., weather, climate, light, water, temperature, soil composition, catastrophic events) factors affect a given ecosystem. **5b.** analyzing how biotic and abiotic factors affect a given ecosystem. **5c.** predicting the outcome of a given change in biotic and abiotic factors in an ecosystem. **5d.** using a visual model (e.g., graph) to track population changes in an ecosystem.	
LS2 (5–8) SAE-6. Given a scenario trace the flow of energy through an ecosystem, beginning with the sun, through organisms in the food web, and into the environment (includes photosynthesis and respiration).	
LS2 (7–8)-6. Students demonstrate an understanding of energy flow in an ecosystem by… **6a.** explaining the transfer of the sun's energy through living systems and its effect upon them. **6b.** describing the basic processes and recognizing the names and chemical formulas of the substances involved in photosynthesis and respiration. **6c.** explaining the relationship between photosynthesis and respiration. Students demonstrate an understanding of food webs in an ecosystem by… **6d.** creating or interpreting a model that traces the flow of energy in a food web.	

[L] = Assessed locally
= Measured by EXPLORE Science Test

_____ = Content sampled by EXPLORE Science Test

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Life Science	
LS2 (5–8) SAE-7. Given an ecosystem, trace how matter cycles among and between organisms and the physical environment (includes water, oxygen, food web, decomposition, recycling but not carbon cycle or nitrogen cycle).	
LS2 (7–8)-7. Students demonstrate an understanding of recycling in an ecosystem by… **7a.** diagramming or sequencing a series of steps showing how matter cycles among and between organisms and the physical environment. **7b.** developing a model for a food web of local aquatic and local terrestrial environments. **7c.** explaining the inverse nature or complementary aspects of photosynthesis/respiration in relation to carbon dioxide, water and oxygen exchange. **7d.** conducting a controlled investigation that shows that the total amount of matter remains constant, even though its form and location change as matter is transferred among and between organisms and the physical environment (e.g., bottle biology, mass of a closed system over time).	
LS 3. Groups of organisms show evidence of change over time (structures, behaviors, and biochemistry).	
LS3 (5–8) MAS+FAF-8. Use a model, classification system, or dichotomous key to illustrate, compare, or interpret possible relationships among groups of organisms (e.g., internal and external structures, anatomical features).	
LS3 (7–8)-8. Students demonstrate an understanding of classification of organisms by… **8a.** sorting organisms with similar characteristics into groups based on internal and external structures. **8b.** explaining how species with similar evolutionary histories/characteristics are classified more closely together with some organisms than others (e.g., a fish and human have more common with each other than a fish and jelly fish) **8c.** recognizing the classification system used in modern biology.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Life Science	
LS3 (5–8) POC-9. Cite examples supporting the concept that certain traits of organisms may provide a survival advantage in a specific environment and therefore, an increased likelihood to produce offspring.	
LS3 (7–8)-9. Students demonstrate an understanding of Natural Selection/ evolution by… **9a.** explaining that genetic variations/traits of organisms are passed on through reproduction and random genetic changes. **9b.** gathering evidence that demonstrates evolutionary relationships among organisms (e.g., similarities in body structure, early development, traits). **9c.** differentiating between acquired and inherited characteristics and giving examples of each. **9d.** explaining how natural selection leads to evolution (e.g., survival of the fittest). **9e.** describing how scientists' understanding of the way species originate or become extinct has changed over time.	
LS 4. Humans are similar to other species in many ways, and yet are unique among Earth's life forms.	
LS4 (5–8) INQ-10. Use data and observations to support the concept that environmental or biological factors affect human body systems (biotic & abiotic).	
LS4 (7–8)-10. Students demonstrate an understanding of human body systems by… **10a.** predicting and explaining the effects of biotic factors (e.g., microbes, parasites, food availability, aging process) on human body systems. **10b.** predicting and explaining the effect of abiotic factors (e.g., drugs, environmental conditions) on human body systems. Students demonstrate an understanding of patterns of human health/disease by… **10c.** researching and reporting on how biotic (e.g., microbes, parasites, food availability, aging process) and abiotic (e.g., radiation, toxic materials, carcinogens) factors cause disease and affect human health.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Life Science	
LS4 (5–8) INQ+POC-11. Using data provided, select evidence that supports the concept that genetic information is passed on from both parents to offspring.	
LS4 (7–8)-11. Students demonstrate an understanding of human heredity by… **11a.** recognizing that characteristics of an organism result from inherited traits of one or more genes from the parents and others result from interactions with the environment. **11b.** tracing a genetic characteristic through a given pedigree (e.g., genealogical chart, Queen Victoria – hemophilia or hypothetical example) to demonstrate the passage of traits. **11c.** identifying that genetic material (i.e., chromosomes and genes) is located in the cell's nucleus.	
LS4 (5–8) POC-12. Describe the major changes that occur over time in human development from single cell through embryonic development to new born (i.e., trimesters: 1st – group of cells, 2nd – organs form, 3rd – organs mature).	
LS4 (7–8)-12. Students demonstrate an understanding of patterns of human development by… **12a.** identifying and sequencing the stages of human embryonic development. **12b.** describing the changes from one stage of embryonic development to the next. **12c.** comparing and contrasting embryonic development in various life forms (e.g., humans, frogs, chickens, sea urchins). **12d.** comparing the patterns of human development after birth to life stages of other species.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Earth & Space Science	
ESS 1. The Earth and earth materials as we know them today have developed over long periods of time, through continual change processes.	
ESS1 (5–8) INQ+POC-1. Use geological evidence provided to support the idea that the Earth's crust/lithosphere is composed of plates that move.	
ESS1 (7–8)-1. Students demonstrate an understanding of processes and change over time within earth systems by… **1a.** citing evidence and developing a logical argument for plate movement using fossil evidence, layers of sedimentary rock, location of mineral deposits, and shape of the continents.	
ESS1 (5–8) SAE-2. *Explain the processes that cause the cycling of water into and out of the atmosphere and their connections to our planet's weather patterns.*	
ESS1 (7–8)-2. *Students demonstrate an understanding of processes and change over time within earth systems by…* *[No GSEs for the ESS1 (5–8) SAE-2 Assessment Target]*	
ESS1 (5–8) POC-3. Explain how earth events (abruptly and over time) can bring about changes in Earth's surface: landforms, ocean floor, rock features, or climate.	
ESS1 (7–8)-3. Students demonstrate an understanding of processes and change over time within earth systems by… **3a.** evaluating slow processes (e.g., weathering, erosion, mountain building, sea floor spreading) to determine how the earth has changed and will continue to change over time. **3b.** evaluating fast processes (e.g., erosion, volcanoes and earthquakes) to determine how the earth has changed and will continue to change over time. **3c.** investigating the effect of flowing water on landforms (e.g., stream table, local environment).	
ESS1 (5–8) SAE+POC-4. Explain the role of differential heating or convection in ocean currents, winds, weather and weather patterns, atmosphere, or climate.	
ESS1 (7–8)-4. Students demonstrate an understanding of processes and change over time within earth systems by… **4a.** explaining cause and effect relationships between global climate and energy transfer. **4b.** using evidence to make inferences or predictions about global climate issues.	
ESS1 (5–8) INQ+POC-5. *Using data about a rock's physical characteristics make and support an inference about the rock's history and connection to rock cycle.*	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Earth & Space Science	
ESS1 (7–8)-5. *Students demonstrate an understanding of processes and change over time by…* *No GSEs for the ESS1 (5–8) INQ+POC-5 Assessment Target*	
ESS 2. The earth is part of a solar system, made up of distinct parts that have temporal and spatial interrelationships.	
ESS2 (5–8) MAS-6. *Compare and contrast planets based on data provided about size, composition, location, orbital movement, atmosphere, or surface features (includes moons).*	
ESS2 (7–8)-6. *Students demonstrate an understanding of characteristics of the solar system by…* *No GSEs for the ESS2 (7–8)-6 Assessment Target*	
ESS2 (5–8) NOS-7. Explain how technological advances have allowed scientists to re-evaluate or extend existing ideas about the solar system.	
ESS2 (7–8)-7. Students demonstrate an understanding of how technological advances have allowed scientists to reevaluate or extend existing ideas about the solar system by… **7a.** identifying major discoveries from different scientists and cultures and describing how these discoveries have contributed to our understanding of the solar system (e.g., timeline, research project, picture book).	
ESS2 (5–8) SAE+POC-8. Explain temporal or positional relationships between or among the Earth, sun, and moon (e.g., night/day, seasons, year, tides) or how gravitational force affects objects in the solar system (e.g., moons, tides, orbits, satellites).	
ESS2 (7–8)-8. Students demonstrate an understanding of temporal or positional relationships between or among the Earth, sun, and moon by… **8a.** using or creating a model of the Earth, sun and moon system to show rotation and revolution. **8b.** explaining night/day, seasons, year, and tides as a result of the regular and predictable motion of the Earth, sun, and moon. **8c.** using a model of the Earth, sun and moon to recreate the phases of the moon.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Earth & Space Science	
ESS2 (7–8)-8. Students demonstrate an understanding of gravitational relationships between or among objects of the solar system by… **8d.** describing the relationship between mass and the gravitational force between objects. **8e.** describing the relationship between distance and the gravitational force between objects. **8f.** explaining that the sun's gravitational pull holds the Earth and other planets in their orbits, just as the planet's gravitational pull keeps their moons in orbit.	
ESS 3. The origin and evolution of galaxies and the universe demonstrate fundamental principles of physical science across vast distances and time	
ESS3 (7–8)-9. Students demonstrate an understanding of the structure of the universe by… **9a.** describing the universe as containing many billions of galaxies, and each galaxy contains many billions of stars. [L]	

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TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Physical Science	
PS 1. All living and nonliving things are composed of matter having characteristic properties that distinguish one substance from another (independent of size or amount of substance)	
PS1 (5–8) INQ-1. Investigate the relationships among mass, volume and density.	
PS1 (7–8)-1. Students demonstrate an understanding of characteristic properties of matter by… **1a.** measuring mass and volume of both regular and irregular objects and using those values as well as the relationship D = m/v to calculate density.	
PS1 (5–8) INQ+POC-2. Given data about characteristic properties of matter (e.g., melting and boiling points, density, solubility) identify, compare, or classify different substances.	
PS1 (7–8)-2. Students demonstrate an understanding of characteristic properties of matter by… **2a.** identifying an unknown substance given its characteristic properties. **2b.** classifying and comparing substances using characteristic properties (e.g., solid, liquid, gas; metal, non-metal).	
PS1 (5–8) INQ+SAE-3. Collect data or use data provided to infer or predict that the total amount of mass in a closed system stays the same, regardless of how substances interact (conservation of matter).	
PS1 (7–8)-3. Students demonstrate an understanding of conservation of matter by… **3a.** citing evidence to conclude that the amount of matter before and after undergoing a physical or a chemical change in a closed system remains the same.	
PS1 (5–8) SAE+MAS-4. Represent or explain the relationship between or among energy, molecular motion, temperature, and states of matter.	
PS1 (7–8)-4. Students demonstrate an understanding of states of matter by… **4a.** creating diagrams or models that represent the states of matter at the molecular level. **4b.** explaining the effect of increased and decreased heat energy on the motion and arrangement of molecules. **4c.** observing the physical processes of evaporation and condensation, or freezing and melting, and describe these changes in terms of molecular motion and conservation of mass.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Physical Science	
PS1 (5–8) MAS-5. Given graphic or written information, classify matter as atom/molecule or element/compound (not the structure of an atom).	
PS1 (7–8)-5. Students demonstrate an understanding of the structure of matter by… **5a.** using models or diagrams to show the difference between atoms and molecules. **5b.** classifying common elements and compounds using symbols and simple chemical formulas. **5c.** interpreting the symbols and formulas of simple chemical equations. **5d.** using symbols and chemical formulas to show simple chemical rearrangements that produce new substances (chemical change). **5e.** explaining that when substances undergo physical changes, the appearance may change but the chemical makeup and chemical properties do not. **5f.** explaining that when substances undergo chemical changes to form new substances, the properties of the new combinations may be very different from those of the old.	
PS 2. Energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed.	
PS2 (5–8)-SAE+POC-6. Given a real-world example, show that within a system, energy transforms from one form to another (i.e., chemical, heat, electrical, gravitational, light, sound, mechanical).	
PS2 (7–8)-6. Students demonstrate an understanding of energy by… **6a.** using a real world example to explain the transfer of potential energy to kinetic energy. **6b.** constructing a model to explain the transformation of energy from one form to another (e.g., an electrical circuit changing electrical energy to light energy in a light bulb). **6c.** explaining that while energy may be stored, transferred, or transformed, the total amount of energy is conserved. **6d.** describing the effect of changing voltage in an electrical circuit.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Physical Science	
PS2 (5–8) INQ+SAE+POC-7. Use data to draw conclusions about how heat can be transferred (convection, conduction, radiation).	
PS2 (7–8)-7. Students demonstrate an understanding of heat energy by… **7a.** designing a diagram, model, or analogy to show or describe the motion of molecules for a material in a warmer and cooler state. **7b.** explaining the difference among conduction, convection and radiation and creating a diagram to explain how heat energy travels in different directions and through different materials by each of these methods.	
PS 3. The motion of an object is affected by forces.	
PS3 (5–8) INQ+POC-8. Use data to determine or predict the overall (net effect of multiple forces (e.g., friction, gravitational, magnetic) on the position, speed, and direction of motion of objects.	
PS3 (7–8)-8. Students demonstrate an understanding of motion by… **8a.** measuring distance and time for a moving object and using those values as well as the relationship s = d/t to calculate speed and graphically represent the data. **8b.** solving for any unknown in the expression s = d/t given values for the other two variables. **8c.** differentiating among speed, velocity and acceleration. Students demonstrate an understanding of force (e.g., friction, gravitational, magnetic) by… **8d.** making and testing predictions on how unbalanced forces acting on objects change speed or direction of motion, or both. **8e.** describing or graphically representing that the acceleration of an object is proportional to the force on the object and inversely proportional to the object's mass. **8f.** differentiating between mass and weight.	

TABLE 3D

RHODE ISLAND Grade 8 Science Content Grade-Level/-Span Expectations	EXPLORE Science College Readiness Standards
Physical Science	
PS3 (5–8) SAE+INQ. Experiment, observe, or predict how energy might be transferred by means of waves. [L]	
PS3 (7–8)-LA. Students demonstrate an understanding of the visible spectrum of light by… **LAa.** experiment how light from the sun is made up of a mixture of many different colors of light (e.g., using prisms, spectrometers, crystals). **LAb.** representing in words, diagrams, or other models the visible spectrum as a part of the electromagnetic spectrum (consisting of visible light, infrared, and ultraviolet radiation) and composed of all colors of light LAc differentiating between electromagnetic and mechanical waves. **LAc.** differentiating between electromagnetic and mechanical waves.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Life Science	
LS 1. All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, and species).	
LS1 (9–11) INQ+SAE+FAF-1. Use data and observation to make connections between, to explain, or to justify how specific cell organelles produce/regulate what the cell needs or what a unicellular or multi-cellular organism needs for survival (e.g., protein synthesis, DNA replication, nerve cells).	
LS1 (9–11)-1. Students demonstrate understanding of structure and function-survival requirements by… **1a.** explaining the relationships between and amongst the specialized structures of the cell and their functions (e.g., transport of materials, energy transfer, protein building, waste disposal, information feedback, and even movement). **1aa.** describing how the malfunction of cell organelles can lead to disease (e.g., "leaky" lysosomes and rheumatoid arthritis) **1b.** explaining that most multicellular organisms have specialized cells to survive, while unicellular organisms perform all survival functions (e.g., nerve cells communicate with other cells, muscle cells contract, unicellular are not specialized). **1bb.** identifying various specialized cells and common unicellular organisms in diagrams, photographs and/or microscopic slides. Students demonstrate understanding of differentiation by… **1c.** comparing the role of various sub-cellular structures in unicellular organisms to comparable structures in multicellular organisms (e.g., oral groove, gullet, food vacuole in Paramecium compared to digestive systems in multicellular organisms). **1cc.** describing the origin and nature of stem cells and their potential for curing disease.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Life Science	
LS1 (9–11) FAF+POC-2. Explain or justify with evidence how the alteration of the DNA sequence may produce new gene combinations that make little difference, enhance capabilities, or can be harmful to the organism (e.g., selective breeding, genetic engineering, mutations).	
LS1 (9–11)-2. Students demonstrate an understanding of the molecular basis for heredity by… **2a.** describing the DNA structure and relating the DNA sequence to the genetic code. **2aa.** diagramming or modeling the relationship between chromosomes, genes and DNA, including histones and nucleosomes. **2b.** explaining how DNA may be altered and how this affects genes/heredity (e.g., substitution, insertion, or deletion). **2bb.** describing the how foods are genetically modified and the potential health, environmental and economic advantages and disadvantages of doing so. **2c.** describing how DNA contains the code for the production of specific proteins. **2cc.** tracing in a diagram or model the information flow—DNA to RNA to Protein—through transcription and translation.	
LS 2. Matter cycles and energy flows through an ecosystem.	
LS2 (9–11) INQ+SAE-3. Using data from a specific ecosystem, explain relationships or make predictions about how environmental disturbance (human impact or natural events) affects the flow of energy or cycling of matter in an ecosystem.	
LS2 (9–11)-3. Students demonstrate an understanding of equilibrium in an ecosystem by… **3a.** defining and giving an example of equilibrium in an ecosystem. **3b.** describing ways in which humans can modify ecosystems and describe and predict the potential impact (e.g., human population growth; technology; destruction of habitats; agriculture; pollution; and atmospheric changes). **3bb.** researching and citing evidence of global warming to describe the potential impact on both the living and physical systems on Earth. **3c.** describing ways in which natural events (e.g., floods and fires) can modify ecosystems and describe and predict the potential effects. **3cc.** investigating and reporting on a case study of ecosystem disruption caused by a natural event (e.g., Mississippi River delta region and hurricanes).	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Life Science	
LS2 (9–11) POC+SAE-4. Trace the cycling of matter (e.g., carbon cycle) and the flow of energy in a living system from its source through its transformation in cellular, biochemical processes (e.g., photosynthesis, cellular respiration, fermentation).	
LS2 (9–11)-4. Students demonstrate an understanding of matter and energy flow in an ecosystem by… **4a.** diagramming the energy flow in an ecosystem that compares the energy at different trophic levels (e.g., What inferences can you make about energy "loss" & use?). **4aa.** explaining the energy transfer with cells in photosynthesis and cellular respiration, tracking ATP production and consumption. **4b.** explaining how the chemical elements and compounds that make up living things pass through food webs and are combined and recombined in different ways (e.g., nitrogen, carbon cycles, O_2, & H_2O cycles).	
LS2 (9–11) NOS-5. Explain or evaluate potential bias in how evidence is interpreted in reports concerning a particular environmental factor that impacts the biology of humans.	
LS2 (9–11)-5. Students will evaluate potential bias from a variety of media sources in how information is interpreted by… **5a.** analyzing claims from evidence and sources and evaluate based upon relevance, and validity. **5b.** applying additional scientific data to develop logical arguments concerning environmental issues (e.g., tobacco company vs. cancer society articles on effects of smoking, government/big business vs. environmental perceptions of global climate change).	
LS 3. Groups of organisms show evidence of change over time (structures, behaviors, and biochemistry).	
LS3 (9–11) NOS-6. Explain how evidence from technological advances supports or refutes the genetic relationships among groups of organisms (e.g., DNA analysis, protein analysis.	
LS3 (9–11)-6. Students will demonstrate their understanding of the degree of genetic relationships among organisms by… **6a.** using given data (diagrams, charts, narratives, etc.) and advances in technology to explain how our understanding of genetic variation has developed over time. **6aa.** describing how the Human Genome Project has contributed to our understanding of both human heredity and the commonality of DNA sequences among organisms.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Life Science	
LS3 (9–11) INQ POC-7. Given a scenario, provide evidence that demonstrates how sexual reproduction results in a great variety of possible gene combinations and contributes to natural selection (e.g., Darwin's finches, isolation of a species, Tay Sach's disease).	
LS3 (9–11)-7. Students demonstrate an understanding of Natural Selection/evolution by… **7a.** investigating how information is passed from parents to offspring by encoded molecules (e.g., evidence from electrophoresis, DNA fingerprinting). **7aa.** distinguishing the stages of mitosis and meiosis and how each contributes to the production of offspring with varying traits **7b.** investigating how the sorting and recombination of genes in sexual reproduction results in a great variety of possible gene combinations in the offspring of any two parents (e.g., manipulate models to represent and predict genotypes and phenotypes, Punnett Squares, probability activities). **7bb.** researching and reporting on the contributions of key scientist in understanding evolution and natural selection (e.g., Darwin, Wallace, Mendel). **7c.** citing evidence of how natural selection and its evolutionary consequences provide a scientific explanation for the diversity and unity of past and present life forms on Earth (e.g., Galapagos Islands, Hawaiian Islands, Australia, geographic isolation, adaptive radiation). **7cc.** trace the evolution and migration of *Homo sapiens*.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Life Science	
LS3 (9–11) INQ FAF+POC-8. Given information about living or extinct organisms, cite evidence to explain the frequency of inherited characteristics of organisms in a population, OR explain the evolution of varied structures (with defined functions) that affected the organisms' survival in a specific environment (e.g., giraffe, wind pollination of flowers).	
LS3 (9–11)-8. Students demonstrate an understanding of Natural Selection/evolution by… **8a.** illustrating that when an environment changes, the survival advantage/disadvantage of some characteristics may change. **8b.** distinguish between microevolution (on small scale within a single population; e.g., change in gene frequency within a population) and macroevolution (on a scale that transcends boundaries of a single species; e.g., diversity of all beetle species within the order of insects) and explain how macroevolution accounts for speciation and extinction. **8bb.** explain punctuated equilibrium as a model of evolution and contrast it with a more gradual model of evolution. **8c.** recognizing patterns in molecular and fossil evidence, to provide a scientific explanation for Natural Selection and its evolutionary consequences (e.g., survival, adaptation). Students demonstrate an understanding of classification of organisms by… **8d.** using data or models (charts, diagrams, table, narratives etc.) to analyze how organisms are organized into a hierarchy of groups and subgroups based on evolutionary relationships (e.g., creating a taxonomic key to organize a given set of examples).	
LS 4. Humans are similar to other species in many ways, and yet are unique among Earth's life forms.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Life Science	
LS4 (9–11) NOS+INQ-9. Use evidence to make and support conclusions about the ways that humans or other organisms are affected by environmental factors or heredity (e.g., pathogens, diseases, medical advances, pollution, mutations).	
LS4 (9–11)-9. Students demonstrate an understanding of how humans are affected by environmental factors and/or heredity by… **9a.** researching scientific information to explain how such things as radiation, chemicals, and other factors can cause gene mutations or disease. **9b.** providing an explanation of how the human species impacts the environment and other organisms (e.g., reducing the amount of the earth's surface available to those other species, interfering with their food sources, changing the temperature and chemical composition of their habitats, introducing foreign species into their ecosystems, and altering organisms directly through selective breeding and genetic engineering). **9bb.** using a computer simulation to study the effects of human activities on a particular environment (actual or model).	
LS4 (9–11) SAE+FAF-10. Explain how the immune system, endocrine system, or nervous system works and draw conclusions about how systems interact to maintain homeostasis in the human body.	
LS4 (9–11)-10. Students demonstrate an understanding of human body systems by… **10a.** explaining how the roles of the immune, endocrine, and nervous systems work together to maintain homeostasis. **10b.** investigating the factors that affect homeostasis (e.g., positive and negative feedback). **10bb.** investigating and reporting on a human disease and its consequential disruption of homeostasis (e.g., diabetes, cancer, AIDS).	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Earth & Space Science	
ESS 1. The Earth and earth materials as we know them today have developed over long periods of time, through continual change processes.	
ESS1 (9–11) INQ+POC-1. Provided with geologic data (including movement of plates) on a given locale, predict the likelihood for an earth event (e.g., volcanoes, mountain ranges, islands, earthquakes).	
ESS1 (9–11)-1. Students demonstrate an understanding of processes and change over time within earth systems by… **1a.** plotting the location of mountain ranges and recent earthquakes and volcanic eruptions to identify any existing patterns.	
ESS1 (9–11) NOS-2. Trace the development of the theory of plate tectonics or provide supporting geologic/geographic evidence that supports the validity of the theory of plate tectonics.	
ESS1 (9–11)-2. Students demonstrate an understanding of processes and change over time within earth systems by… **2a.** using given data (diagrams, charts, narratives, etc.) and advances in technology to explain how scientific knowledge regarding plate tectonics has changed over time.	
ESS1 (9–11) SAE+POC-3. Explain how internal and external sources of heat (energy) fuel geologic processes (e.g., rock cycle, plate tectonics, sea floor spreading).	
ESS1 (9–11)-3. Students demonstrate an understanding of processes and change over time within earth systems by… **3a.** explaining how heat (produced by friction, radioactive decay and pressure) affects the Rock Cycle. **3aa.** describe how interaction of wind patterns, ocean currents, and mountain ranges results in the global pattern of latitudinal bands of rain forests and deserts. **3b.** explaining how convection circulations of the mantle initiate the movement of the crustal plates which then cause plate movement and seismic activity. **3bb.** use computer modeling/simulations to predict the effects of an increase in greenhouse gases on earth systems (e.g., earth temperature, sea level, atmosphere composition). **3c.** investigating and using evidence to explain that conservation in the amount of earth materials occurs during the Rock Cycle. **3d.** explaining how the physical and chemical processes of the Earth alter the crust (e.g., seafloor spreading, hydrologic cycle, weathering, element cycling).	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Earth & Space Science	
ESS1 (9–11) INQ+POC+MAS-4. Relate how geologic time is determined using various dating methods (e.g., radioactive decay, rock sequences, fossil records).	
ESS1 (9–11)-4. Students demonstrate an understanding of processes and change over time by… **4a.** describing various dating methods to determine the age of different rock structures. **4aa.** calculating the age of a rocks from various regions using radioactive half life (given its constituent elements, isotopes and rate of decay) and using those values to provide evidence for geologic relationships between/among the regions. **4bb.** analyzing samples of rock to determine the relative age of the rock structure.	
ESS 2. The earth is part of a solar system, made up of distinct parts that have temporal and spatial interrelationships.	
ESS2 (Ext.)-X. Students demonstrate an understanding of temporal or positional relationships between or among the Earth, sun, and moon and the stars by… **Xaa.** explaining their role in navigation, beginning with ancient civilizations, advancing through 19th century mathematical celestial navigation, to current Global Positioning Systems. [L]	
ESS 3. The origin and evolution of galaxies and the universe demonstrate fundamental principles of physical science across vast distances and time	
ESS3 (9–11) NOS-5. Explain how scientific theories about the structure of the universe have been advanced through the use of sophisticated technology (e.g., space probes; visual, radio and x-ray telescopes).	
ESS3 (9–11)-5. Students demonstrate an understanding of the origins and evolution of galaxies and the universe by… **5a.** using appropriate prompts (diagrams, charts, narratives, etc.) students will explain how scientific knowledge regarding the structure of the universe has changed over time due to advances in technology which accumulates new evidence to redefine scientific theories and ideas. **5aa.** comparing the processes involved in the life cycle of stars (e.g., gravitational collapse, thermonuclear fusion, nova) and evaluate supporting evidence.	

[L] = Assessed locally

= Measured by EXPLORE, PLAN, and ACT Science tests

_____ = Content sampled by EXPLORE, PLAN, and ACT Science tests

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Earth & Space Science	
ESS3 (9–11) NOS-6. Provide scientific evidence that supports or refutes the "Big Bang" theory of how the universe was formed	
ESS3 (9–11)-6. Students demonstrate an understanding of the formation of the universe by… **6a.** using data (diagrams, charts, narratives, etc.) to explain how the "Big Bang" theory has developed over time citing evidence to support its occurrence (Doppler Effect/red shift).	
ESS3 (9–11) SAE-7. Based on the nature of electromagnetic waves, explain the movement and location of objects in the universe or their composition (e.g., red shift, blue shift, line spectra)	
ESS3 (9–11)-7. Students demonstrate an understanding of processes and change over time within the system of the universe (Scale, Distances, Star Formation, Theories, Instrumentation) by… **7a.** applying the properties of waves/particles to explain the movement, location, and composition of the stars and other bodies in the universe.	
ESS3 (9–11) POC+SAE-8. Explain the relationships between or among the energy produced from nuclear reactions, the origin of elements, and the life cycle of stars.	
ESS3 (9–11)-8. Students demonstrate an understanding of the life cycle of stars by… **8a.** relating the process of star formation to the size of the star and including the interaction of the force of gravity, fusion, and energy release in the development of the star, identifying and describing the characteristics common to most stars in the universe. **8b.** Describing the ongoing processes involved in star formation, their life cycles and their destruction.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Physical Science	
PS 1. All living and nonliving things are composed of matter having characteristic properties that distinguish one substance from another (independent of size or amount of substance)	
PS1 (9–11) INQ-1. Use physical and chemical properties as determined through an investigation to identify a substance.	
PS1 (9–11)-1. Students demonstrate an understanding of characteristic properties of matter by… **1a.** utilizing appropriate data (related to chemical and physical properties), to distinguish one substance from another or identify an unknown substance. **1aa.** explaining the states of a substance in terms of the particulate nature of matter and the forces of interaction between particles. **1b.** determining the degree of change in pressure of a given volume of gas when the temperature changes incrementally (doubles, triples, etc.). **1bb.** quantitatively determining how volume, pressure, temperature and amount of gas affect each other (PV = nRT) in a system.	
PS1 (9–11) MAS+NOS-2. Scientific thought about atoms has changed over time. Using information (narratives or models of atoms) provided, cite evidence that has changed our understanding of the atom and the development of atomic theory.	
PS1 (9–11)-2. Students demonstrate an understanding of characteristic properties of matter by… **2a.** using given data (diagrams, charts, narratives, etc.) and advances in technology to explain how the understanding of atomic structure has changed over time.	
PS1 (9–11) POC-3. Explain how properties of elements and the location of elements on the periodic table are related.	
PS1 (9–11)-3. Students demonstrate an understanding of characteristic properties of matter by… **3a.** identifying and explaining the basis for the arrangement of the elements within the periodic table (e.g., trends, valence electrons, reactivity, electronegativity, ionization). **3b.** predicting the relative physical and chemical properties of an element based on its location within the Periodic Table.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Physical Science	
PS1 (9–11) MAS+FAF-4. Model and explain the structure of an atom or explain how an atom's electron configuration, particularly the outermost electron(s), determines how that atom can interact with other atoms.	
PS1 (9–11)-4. Students demonstrate an understanding of the structure of matter by… **4a.** comparing the three subatomic particles of atoms (protons, electrons, neutrons) and their location within an atom, their relative mass, and their charge. **4aa.** writing an electron configuration to include *s*, *p*, *d*, and *f* orbitals and relating to atomic interactions. **4b.** writing formulae for compounds and developing basic (excluding transition elements) models using electron structure. **4bb.** given specific reactants (e.g., Ba + Cl_2) write the balanced equation and determine the products, type of compound formed (ionic or molecular), and the properties of the compound (e.g., solubilities, electrolytic, etc). **4c.** explaining or modeling how the electron configuration of atoms governs how atoms interact with one another (e.g., covalent, hydrogen and ionic bonding).	
PS 2. Energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed.	
PS2 (9–11) POC+SAE-5. Demonstrate how transformations of energy produce some energy in the form of heat and therefore the efficiency of the system is reduced (chemical, biological, and physical systems).	
PS2 (9–11)-5. Students demonstrate an understanding of energy by… **5a.** describing or diagramming the changes in energy (transformation) that occur in different systems (e.g., chemical = exo and endo thermic reactions, biological = food webs, physical = phase changes). **5aa.** Identifying, measuring, calculating and analyzing qualitative and quantitative relationships associated with energy transfer or energy transformation. **5b.** explaining the Law of Conservation of Energy as it relates to the efficiency (loss of heat) of a system. **5bb.** quantitatively determining the efficiency of a given system.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Physical Science	
PS2 (9–11) INQ+SAE-6. Using information provided about chemical changes, draw conclusions about and explain the energy flow in a given chemical reaction (e.g., exothermic reactions, endothermic reactions).	
PS2 (9–11)-6. Students demonstrate an understanding of physical, chemical, and nuclear changes by… **6a.** writing simple balanced chemical equations to represent chemical reactions and illustrate the conservation of matter. **6aa.** using chemical equations and information about molar masses to predict quantitatively the masses of reactants and products in chemical reactions. **6b.** identifying whether a given chemical reaction or a biological process will release or consume energy (endothermic and exothermic) based on the information provided (e.g., given a table of energy values for reactants and products or an energy diagram). **6bb.** using quantitative heat flow or calorimetric investigations to determine the energy released or consumed in the process. **6bbb.** qualitatively and/or quantitatively predicting reactants and products in a prescribed investigation (e.g., Acid-base, Redox). **6c.** explaining and/or modeling how the nuclear make-up of atoms governs alpha and beta emissions creating changes in the nucleus of an atom results in the formation of new elements. **6d.** explaining the concept of half-life and using the half-life principal to predict the approximate age of a material. **6e.** differentiating between fission and fusion in nuclear reactions and their relation to element changes and energy formation	
PS2 (9–11)-SAE-7. Explain relationships between and among electric charges, magnetic fields, electromagnetic forces, and atomic particles.	
PS2 (9–11)-7. Students demonstrate an understanding of electromagnetism by… **7a.** explaining through words, diagrams, models, or electrostatic demonstrations the principle that like charges repel and unlike charges attract. **7b.** explaining through words, charts, diagrams, and models the effects of distance and the amount of charge on the strength of the electrical force present. **7c.** describing the relationship between moving electric charges and magnetic fields.	

TABLE 3E

RHODE ISLAND Grades 9–11 Science Content Grade-Level/-Span Expectations	EXPLORE, PLAN, and ACT Science College Readiness Standards
Physical Science	
PS 3. The motion of an object is affected by forces.	
PS3 (9–11) POC+INQ-8. Given information (e.g., graphs, data, diagrams), use the relationships between or among force, mass, velocity, momentum, and acceleration to predict and explain the motion of objects.	
PS3 (9–11)-8. Students demonstrate an understanding of forces and motion by… **8a.** predicting and/or graphing the path of an object in different reference planes and explain how and why (forces) it occurs. **8aa.** using a quantitative representation of how distance and velocity change over time for a free falling object. **8b.** using modeling, illustrating, graphing explain how distance and velocity change over time for a free falling object. **8bb.** using a quantitative representation of the path of an object which has horizontal and free fall motion. **8cc.** by modeling, illustrating, graphing, and quantitatively explaining the path of an object, which has horizontal and free fall motion (e.g., football, projectile).	
PS3 (9–11) POC-9. Apply the concepts of inertia, motion, and momentum to predict and explain situations involving forces and motion, including stationary objects and collisions.	
PS3 (9–11)-9. Students demonstrate an understanding of forces and motion by… **9a.** explaining through words, charts, diagrams, and models the effects of distance and the amount of mass on the gravitational force between objects (e.g., Universal Gravitation Law). **9b.** using Newton's Laws of Motion and the Law of Conservation of Momentum to predict the effect on the motion of objects.	
PS3 (9–11) SAE-10. Explain the effects on wavelength and frequency as electromagnetic waves interact with matter (e.g., light diffraction, blue sky).	
PS3 (9–11)-10. Students demonstrate an understanding of waves by… **10a.** investigating examples of wave phenomena (e.g., ripples in water, sound waves, seismic waves). **10b.** comparing and contrasting electromagnetic waves to mechanical waves. **10c.** qualifying the relationship between frequency and wavelength of any wave.	