



**CORE**

**ACADEMIC**

**SKILLS**

Foundational  
knowledge  
everyone needs  
to know

Holistic Framework



# Four Keys to College and Career Readiness

Current gauges of college and career readiness tend to focus on academic preparation and achievement, but evidence shows that success in school and the workplace is dependent on multiple aspects in addition to academic ability.

Using ACT research, **ACT's Holistic Framework** provides four domains (core academic skills, cross-cutting capabilities, behavioral skills, and education and career navigation) that most effectively predict and prepare someone's college and career readiness.

Students and employees can use this framework as a map to track themselves along their journey to becoming college and career ready. Teachers and employers can use this framework to identify times for intervention or manage additional support for their students or employees.

# Beneficial for all

## **K-12 Educators and Administrators**

These skills provide a necessary foundation for future learning. If students are effectively prepared in the areas of reading, writing, science, and mathematics, they will be ready for more advanced learning in college or specialization and training in employment.

## **Postsecondary Professionals**

By evaluating an incoming student's proficiency of the core academic knowledge found in this book, you can accurately predict their performance in your institution. Once in your college or university, the reinforcement of these abilities lead to a more prepared, successful graduate in the workplace.

## **Workforce Development Professionals**

The core academic skills an individual hones from elementary through postsecondary education create a foundational knowledge individuals need to be successful in the workplace. You can use the information in this book to gauge how well you or your potential employees grasp these foundational skills.

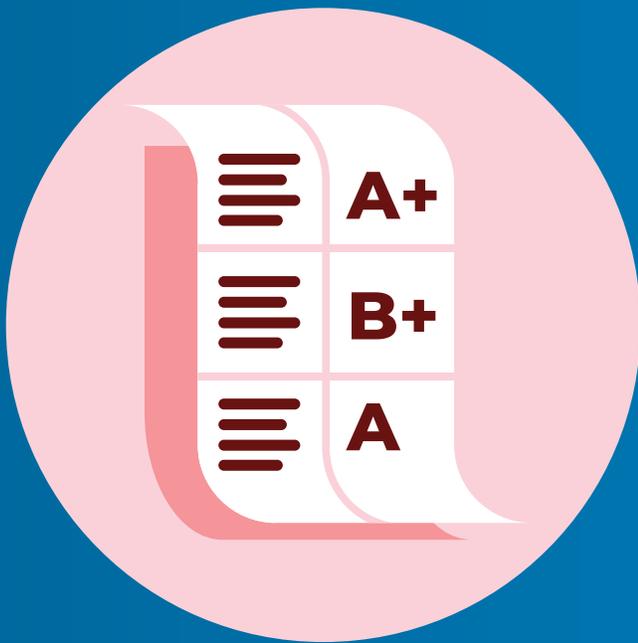
# Core Academic Skills

## Table of Contents

<b>What are the core academic skills?</b> .....	<b>1</b>
<b>English Language Arts</b> .....	<b>3</b>
<b>Mathematics</b> .....	<b>5</b>
<b>Science</b> .....	<b>7</b>
<b>Takeaways</b> .....	<b>9</b>



# WHAT ARE THE CORE ACADEMIC SKILLS?



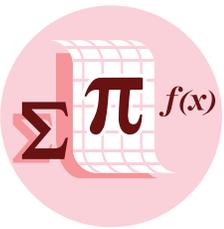
# Knowledge required to progress forward

Students need some level of proficiency in these subject areas: English language arts, mathematics, and science, if they are to advance through school and to prepare for their major and/or career.



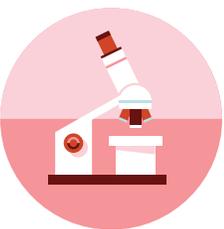
## English language arts:

Reading complex text, writing effectively, and speaking and listening skillfully



## Mathematics:

Reading and transforming numeric and symbolic quantities, including applications to data sets, patterns, space, and change



## Science:

Using key scientific ideas and principles to understand and design investigations, to represent and interpret data, and to construct and evaluate models

Each of the three academic subjects can be broken down further into subcategories which provide a broad outline of the knowledge and skills required from kindergarten through career.

# ENGLISH LANGUAGE ARTS



# English Language Arts

## Reading

- Using knowledge, skill, and strategies to comprehend and interpret a range of texts
- Analyzing and making connections across texts

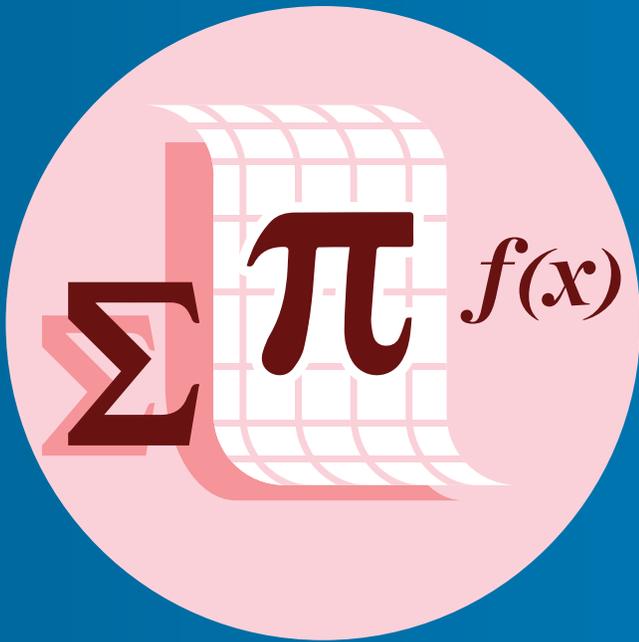
## Writing

- Using knowledge, skill, and strategies to plan, draft, and revise texts for a range of purposes
- Applying knowledge of Standard English at the work and sentence level to produce writing

## Speaking and listening

- Using knowledge, skill, and strategies to produce and comprehend spoken messages
- Engaging in dialogue and collaborative argumentation

# MATHEMATICS



# Mathematics

## Number and Quantity

- Relationships among number representations, including whole numbers, fractions, decimals, integers, rational and irrational numbers, complex numbers, and quantities represented in vectors and matrices

## Operations, Algebra, and Functions

- Processes to perform operations with numbers, simplify expressions, and solve equations, and the relationships among operations, patterns, and functions

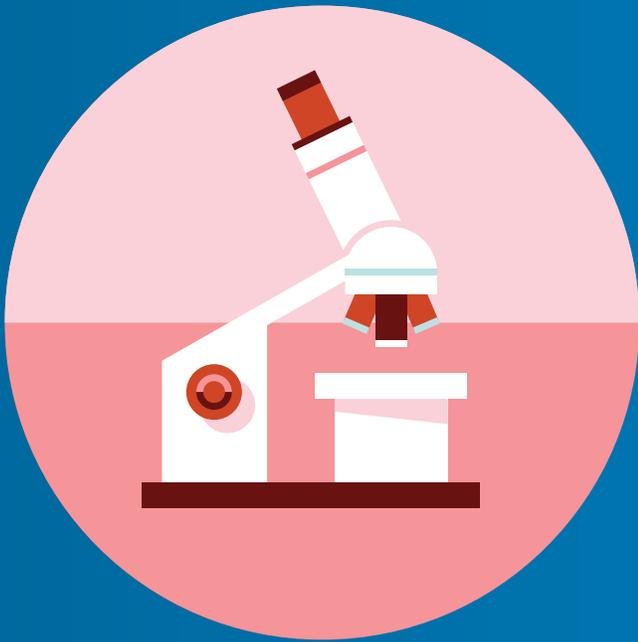
## Geometry and Measurement

- Properties and measurements of and relationships among two- and three-dimensional shapes

## Statistics and Probability

- Processes to calculate and interpret chance, distributions, descriptive statistics, and inferential statistics

# SCIENCE



# Science

## Physical Science

- Relationships among number representations, including whole numbers, fractions, decimals, integers, rational and irrational numbers, complex numbers, and quantities represented in vectors and matrices

## Earth and Space Science

- Processes to perform operations with numbers, simplify expressions, and solve equations, and the relationships among operations, patterns, and functions

## Life Science

- Properties and measurements of and relationships among two - and three-dimensional shapes

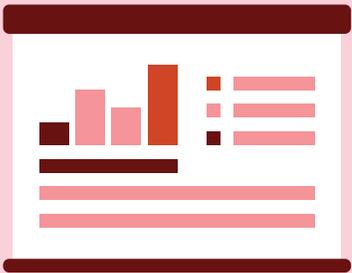
## Science Practices

- Processes to calculate and interpret chance, distributions, descriptive statistics, and inferential statistics

## Cross-Cutting Concepts

- Concepts common across all domains of science
- These concepts link the separate fields of science and promote transfer of knowledge

# TAKEAWAYS



# Applying these skills to college and career readiness

Core academic skills are essential to education and workplace success. Along with cross-cutting capabilities, they compose the cognitive side of the framework. They are foundational to an individual's skillset. Core academic knowledge is needed in order for an individual to progress to advanced levels of learning and development.

The core academic skills have been the focus for many schools and educational systems, and although important, they only provide one view of a student's actual skills and college preparedness.



# Tracking & Evaluating Skills

Where do you start? How do you measure and integrate core academic skills into your school or organization?

ACT is dedicated to helping develop and evaluate students and employees using the core academic aspect of the Holistic Framework.



**ACT Aspire®** assess students' academic skills before, during, and after instruction from third through 10th grade. The longitudinal assessment system predicts scores for PreACT and the ACT.



**PreACT® 8/9** sets an early baseline for students, provide early ACT test practice, and delivers predicted PreACT and ACT scores with just one test.



**PreACT®** provides a powerful simulated testing experience for the ACT test with a predicted ACT score and data to prepare students for life after high school.



**The ACT** test evaluates a student's college readiness in the subject areas covered in this book. It accurately predicts a student's probability of getting a B or C in a corresponding entry college course.



**ACT WorkKeys®** measure real-world skills that employers believe are critical to job success.



**The National Career Readiness Certificate™ (NCRC®)** improves career outcomes for everyone and enhances employers' hiring, training, retention and promotion decisions.



**ACT Learning Professional Services** shares ACT expertise in support of programs targeting K-12, higher education, workforce, credentialing, and professional development.