

What every SIXTH GRADE Student should know and be able to do!

A Message to the Reader

This resource is provided by Salt River Schools. It contains the sixth grade expectations for English Language Arts, Mathematics, Science, and Social Studies. The goal for Salt River Schools is to help all students be successful and ready to move forward to the next grade level. These skills and expectations align to the Arizona Standards and our Division's adopted curriculum. Each standard builds on the standard that came before and toward the standard that comes in the next grade level. For additional information on grade-level readiness, please visit the Arizona Department of Education site: https://www.azed.gov/standards-practices/

English Language Arts

The 2018 Arizona English Language Arts standards include reading and writing foundational skills to help put your child on the path to academic success. Daily reading and writing practice is an important component for grade-level readiness.

Students should know and be able to . . .

Reading Standards for Literature

- Independently and proficiently read grade-appropriate and increasingly complex literature from a variety of genres
- analyze how key details build the central idea or theme of a text
- write summaries of text distinct from personal opinions and judgments
- analyze elements of literature, including an author's use of figurative language and how a specific part of a text contributes to its structure
- cite textual evidence to support analysis and inferences
- compare and contrast how texts from different genres address similar themes or topics
- analyze characters, setting, plot, and theme in literary work

Reading Standards for Informational

- read and analyze grade appropriate informational and nonfiction texts
- cite textual evidence to support analysis and inferences
- write summaries of text distinct from personal opinions and judgments
- integrate information gained from a variety of texts to determine different points of view
- analyze how details build the central idea and purpose of a text
- determine ideas that are and are not supported by evidence
- make accurate inferences based on cited evidence found in a text

Writing Standards

- write argumentative and explanatory pieces that include evidence to support ideas, linking words, precise vocabulary and a conclusion
- maintain a formal style in argumentative and explanatory writing
- write narratives that include a clear sequence of events, descriptive details, dialogue, and words that indicate a change in time
- conduct short research projects to build knowledge through investigation
- plan, draft, revise and edit to produce clear and coherent writing
- demonstrate sufficient command of keyboarding skills to complete a writing task

Speaking and Listening Standards

- engage in collaborative discussions by using effective and appropriate speaking and listening skills and following specific discussion guidelines
- prepare and participate in discussions by reading/researching the texts under discussion
- orally present claims and findings, sequencing ideas and evidence logically with appropriate descriptions, facts, and details
- interpret information presented orally in diverse media formats, and decipher claims that are supported by evidence from claims that are not
- report on a topic or text, sequencing ideas logically, using relevant facts and details, and including multimedia components

Language Standards

- demonstrate mastery of grade level conventions (grammar, capitalization, punctuation, and spelling)
- construct paragraphs that include an introduction of the topic, supporting details, and conclusion
- use knowledge of Greek and Latin prefixes, suffixes, and roots to determine the meaning of unknown words
- determine the meaning of unknown words using root words, prefixes, suffixes, context clues, and dictionaries
- apply their knowledge of figurative language and word relationships to determine nuances in word meaning for sixthgrade vocabulary



Mathematics

The goal of Salt River Schools is for every child to develop a deep understanding of mathematical concepts and procedures, while discovering connections to other subjects through real-life problem solving.

Students should know and be able to ...

Ratios & Proportional Relationships

- understand the concept of ratio as a relationship between two quantities
- understand the concept of unit rate
- use ratio and rate to solve real-world and mathematical problems
- find a percentage of a quantity as a rate

The Number System

- fluently add, subtract, multiply, and divide multi-digit numbers.
- find the greatest common factor and least common multiple of twowhole numbers
- solve word problems involving division of fractions
- understand positive and negative numbers
- understand ordering and absolute value of rational numbers
- solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane

Expressions and Equations

- identify and generate equivalent expressions
- write, read, and evaluate expressions involving exponents, where letters stand for numbers
- identify and write inequalities to solve real-world problems

Geometry

- draw polygons in a coordinate plane
- find the area of triangles, special quadrilaterals, and polygons of 2-dimensional shapes
- find the volume of a right rectangular prism using fractions
- represent 3-dimensional figures using nets
- use geometry to solve real world and mathematical problems

Statistics and Probability

- display data on a number line, dot plots, histograms, and box plots
- summarize and recognize numerical data sets
- recognize a statistical question
- use measures of center (mean, median, and mode) and range, to describe a data set in a single number

Mathematical Practices

 apply the eight Standards for Mathematical Practice such as problem solving, modeling, and logical reasoning to solve math problems

Science Focus: Patterns; Scale, Proportions, and Quantity; Systems and System Models; Energy and Matter

Students should know and be able to ...

Understand the Science & Engineering Practices as they relate to the application of 6th grade Science: Ask questions and define problems;

Develop and use models; Plan and carry out investigations; Analyze and interpret data; Use mathematics and computational thinking; Construct explanations and design solutions; Engage in argument from evidence; Obtain, evaluate, and communicate information

Understand the **Crosscutting Concepts** and how to apply them to 6th Grade Science: **Patterns**; **Cause and Effect**; **Scale, Proportion and Quantity**; **Systems and System Models**; **Energy and Matter**; **Structure and Function**; **Stability and Change**

Physical Science

- analyze and interpret to show that changes in states of matter are caused by different rates of movement of atoms in solids, liquids, and gases (Kinetic Theory)
- plan and carry out an investigation to demonstrate that variations in temperature and/or pressure affect changes in state of matter
- develop and use models to represent that matter is made up of smaller particles called atoms
- develop and use model to predict how forces act on objects at a distance
- analyze how humans use technology to store (potential) and/or use (kinetic) energy

Earth and Space - continued

- develop and use models to explain how constellations and other night sky patterns appear to move due to Earth's rotation and revolution
- develop and use models to construct an explanation of how eclipses, moon phases, and tides occur within the Sun-Earth-Moon system
- use a model to show how the tilt of Earth's axis causes variations in the length of the day and gives rise to seasons

Life Science

 use evidence to construct an argument regarding the impact of human activities on the environment and how they positively and



Earth and Space

- investigate and construct an explanation demonstrating that radiation from the Sun provides energy and is absorbed to warm the Earth's surface and atmosphere
- use ratios and proportions to analyze and interpret data related to scale, properties, and relationships among objects in our solar system
- negatively affect the competition for energy and resources in ecosystems
- engage in argument form evidence to support a claim about the factors that cause species to change and how humans can impact those factors
- develop and use models to support a claim about the factors that cause species to change and how humans can impact those factors
- construct a model that shows the cycling of matter and flow of energy in ecosystems

Social Studies Global Studies World Regions and Cultures of the Eastern Hemisphere (Early Civilizations to Renaissance & Reformation)

Students should know and be able to ...

Understand the Six Elements of the Inquiry Arc: 1. Developing compelling questions; 2. Constructing supporting questions; 3. Gathering and evaluating sources; 4. Developing claims; 5. Communicating conclusions; 6. Taking informed action

Disciplinary Skills and Processes

- examine ways that historians and social scientists know about the past
- analyze connection among events and developments in carious geographic and cultural contexts
- classify a series of historical events and developments as examples of change and/or continuity
- evaluate the significance of past events and their effect on students' lives and society
- explain how and why perspectives of people have changed throughout different historical eras
- analyze how people's perspective influenced what information is available in the historical; sources they created
- define and frame compelling and supporting questions about issues an events in the time-period and region studied
- use evidence to develop claims and counterclaims in response to compelling questions in the time period and region studied
- classify the kinds of historical sources used in secondary interpretations
- use information about historical source including the author, date, place of origin. Intended audience and purpose to judge the extent of which the source is useful for studying a topic and evaluate the credibility of the source
- use questions generated about multiple sources to identify further areas of inquiry and additional sources
- construct and present arguments using claims and evidence from multiple sources
- construct and present explanations using reasoning, correct sequence, examples and details with relevant information and data
- explain the multiple causes and effects of events and developments in the past

Civics - continued

 Describe and apply civic virtues including deliberate processes that contribute to the common goops and democratic principles in school, community, and government

Economics

- analyze the relationship between education, income, and job opportunities within the context of the time period and region studied
- give examples of financial risks that individuals and households face within the context of the time period studied
- describe the relationship between various costs and benefits of economic production
- explain the influence the factors of production have on the manufacture of goods and services within different cultures, regions and communities
- analyze the influence of specialization and trade within different cultures and communities in regions studied
- describe the factors that influence trade between countries or cultures
- explain the effects of increasing economic interdependence within different groups

Geography

- use and construct maps and graphs, and other representations to explain relationship between locations of places and regions
- compare different ways people or groups of people have impacted, modified, or adapted to the environment if the Eastern Hemisphere
- analyze how culture and environmental characteristics affect eh distribution and movement of people, goods, and ideas
- analyze the influence of location, use of natural resources, catastrophic environmental events, and technological developments on human settlement and migration
- explain why environmental characteristics vary among different world regions



Civics

- Analyze the beliefs, expectations, perspectives, and values that underlie points of view regarding civic issues in the time period studied
- Explain challenges and opportunities people and groups face when solving local, regional, and/or global problems
- organize applicable evidence into a coherent argument about the past
- describe how natural and human-made catastrophic events and economic activities in one place affect people living nearby and distant places