What every FOURTH 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 fourth 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

- proficiently and independently read a wide variety of grade-level appropriate literature
- use key details to determine a theme of a text
- use details from texts in order to make inferences, to make comparisons, and to connect ideas
- refer to the text when asking or answering a question
- explore the differences between poems, plays, and stories
- determine the meaning of key words and phrases in a text
- compare how similar ideas and themes are presented in texts from different cultures

Reading Standards for Informational Text

- proficiently and independently read a wide variety of grade-level appropriate informational texts
- determine how the structure and presentation helps to organize the ideas and details in the text
- determine the central idea of a text and how key details contribute to that central idea
- locate evidence in the text to support answers and opinions
- make connections between a series of historical events, scientific ideas or steps in technical procedures
- compare, contrast, and integrate information from multiple texts or sources
- find the meaning of key vocabulary words in informational texts
- use various text features, such as glossaries, icons and indexes, to locate key facts and information
- apply a variety of strategies to comprehend, recount and paraphrase grade-level informational text

Reading Standards Foundational Skills

- apply a variety of strategies to read unknown words in and out of context
- read text with purpose and understanding, self-monitoring understanding

Writing Standards

- write opinion and explanatory pieces that include evidence to support ideas, linking words, and a conclusion
- write narratives that include a clear sequence of events, descriptive details, dialogue, and words that indicate a change in time
- revise writing based on feedback from adults and peers
- conduct short research projects that address different parts of a topic
- gather information from sources to answer a question
- produce writing that is organized for specific task, audience and purpose

Writing Foundations Standards

- read and write cursive and manuscript

Speaking and Listening Standards

- collaborate in discussions through effectively speaking and listening in a variety of settings
- prepare for a discussion by reading and studying the required materials
- paraphrase information from a wide range of sources
- orally report on a topic or text

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

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 …

Operations and Algebraic Thinking
- find and apply factors and multiples of a given whole number to solve problems
- fluently recall multiplication and division facts through 12x12
- solve problems by multiplying multi-digit whole numbers with and without regrouping
- solve problems by dividing multi-digit whole numbers by a single-digit number with and without remainders
- create a number or shape pattern with a given rule

Number and Operations in Base Ten
- read, write, compare, and order whole numbers
- use place value to solve problems
- round multi-digit whole numbers to any place
- use estimation strategies to verify reasonableness of a calculation in a variety of situations
- fluently add and subtract multi-digit whole numbers

Number and Operations- Fractions
- understand decimal notation for fractions
- compare decimals
- model, write, and compare fractions convert fractions (tenths and hundredths) to decimals
- solve problems by adding and subtracting fractions and mixed numbers
- solve problems by multiplying fractions by whole numbers

Measurement and Data
- convert measurements within a measurement system
- solve word problems involving distance, time, volume, mass, and money
- make line plots to display measurement data to the nearest fraction of unit
- solve problems using formulas
- measure angles between 0-360 degrees and solve degree problems to find the unknown measurement of angles
- solve problems involving perimeter and area

Geometry
- draw and identify lines and angles
- recognize and draw lines of symmetry in a 2-dimensional figure
- classify 2-dimensional shapes using properties of lines and angles

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

Science Focus: Systems and System Models; Energy and Matter; Stability and Change

Students should know and be able to …

Understand the **Science & Engineering Practices** as they relate to the application of 4th 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 4th 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
- develop and use a model to demonstrate how a system transfers energy from one object to another even when the objects are not touching
- develop and use a model that explains how energy is moved from place to place through electric currents
- develop and use a model to demonstrate magnetic forces
- engage in argument from evidence on the use and impact of renewable and nonrenewable resources to generate electricity

Earth and Space
- use models to explain seismic waves and their effect on the Earth

Earth and Space – ***continued***
- collect, analyze, and interpret data to explain weather and climate patterns
- construct and support evidence-based argument about availability of water and its impact on life
- define problem(s) and design solution (s) to minimize the effects of natural hazards

Life Science
- analyze and interpret environmental data to demonstrate that species either adapt and survive ort go extinct over time

• plan and carry out an investigation to explore and explain the interactions between Earth's major systems and the impact on Earth's surface materials and processes • develop and/or revise a model using various rock types, fossil location, and landforms to show evidence that Earth's surface has changed over time	

Social Studies Focus: 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 • create and use chronological sequence of related events to compare developments that happened at the same time • compare life in specific historical time periods to life today • generate questions about individuals and groups who have shaped significant historical events • explain why individuals and groups during the same historical period differed in their perspectives on issues and events • explain connections among historical contexts and people's perspectives at the time • develop questions about events and developments in the Americas • compare information provided by different sources about events and developments in the Americas • use information about a source including the author, date, place of origin intended audience, and purpose to evaluate the extent to which the sources is useful for studying a topic • construct and present arguments and explanations using reasoning, examples, and details with relevant information and data from multiple sources • present summaries of arguments and explanations using print, oral, and digital technologies • explain probable causes and effects of events and developments • summarize the central claim in a secondary work of history • use evidence from multiple sources to develop and communicate claims about causes and effects of events	**Civics** • analyze civic virtues and democratic principles of lack thereof within a variety of government structures, societies, and/or communities with the Americas • use primary and secondary sources to generate questions about the concepts and ideas such as liberty, justice, equality, and individual rights **Economics** • examine concepts of scarcity, choice, opportunity cost, and risk • compare different industries, occupations**,** and resources as well as different forms of income earned or received that have shaped Americas **Geography** • use and construct maps and graphs to represent changes in the Americas over time • compare the different ways people or groups of people have impacted, modified, or adapted to the environment of the Americas • explain how the location and use of resources affects human settlement and movement • explain the positive and negative effects of increasing economic interdependence on different groups, countries, and new settlements