

Third Grade
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Core Knowledge Curriculum Objectives: The students will be able to

- Explain what the “Big Bang” theory is
- Define galaxy and name 2 well known galaxies
- Tell what makes up our solar system
- Explain how the earth rotates and the effect that has on our days
- Explain orbit and how we get our seasons
- Define gravity and tell the effects of the moons gravity on the earth
- Explain what a “Black Hole” is
- Tell how an eclipse happens and differentiate between solar and lunar eclipse
- Tell the difference between asteroids, meteors, and comets
- Locate a few constellations such as the “Big Dipper”
- Know how space is explored and studied
- Tell about the Apollo 11 mission

Colorado State Standards

Reading and Writing

Standard 1: Students read and understand a variety of materials.

- use comprehension skills
- make connections between reading and what is known
- adjust reading strategies for different purpose
- use word recognition skills and resources
- use information from their reading to increase vocabulary and enhance language usage.

Standard 2: Students write and speak for a variety of purposes and audiences.

- write letters, expository paragraphs, and summaries
- organize their speaking and writing
- choosing vocabulary that communicates their messages clearly and precisely
- revising and editing writing
- creating readable documents with legible handwriting or word processing at the appropriate time.

Standard 3: Students write and speak using conventional grammar, usage, sentence structure, punctuation, capitalization, and spelling.

- know and use correct grammar in speaking and writing
- apply correct usage in speaking and writing

- use correct sentence structure in writing
- use correct punctuation, capitalization, and spelling

Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.

- make predictions, analyze, draw conclusions, and discriminate between fact and opinion in writing, reading, speaking, and listening
- use reading, writing, speaking, and listening to define and solve problems
- using listening skills to understand directions

Standard 5: Students read and locate, select, and make use of relevant information from a variety of media, reference, and technological sources.

- using organizational features of printed text
- taking notes, outlining, and identifying main ideas in resource materials
- sorting information as it relates to a specific topic or purpose

Science

Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of earth and other objects in space.

- many of the Earth's resources can be conserved, recycled and depleted
- there are basic components of the solar system
- the rotation of the Earth on its axis, in relation to the Sun, produces the day-and-night cycle and the orbit of the Earth around the Sun completes one year

Standard 5: Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.

- models are used to represent events and objects

Habits of Mind

Communication skills

- Make sketches to aid in explaining procedures or ideas.
- Use numerical data in describing and comparing objects and events.
- Describe and compare things in terms of number, shape, texture, size weight, color and motion.
- Draw pictures that correctly portray at least some features of the thing being described.

Critical Response Skills

- Ask, "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.

Thinking Framework

Knowledge: Definitions of various terms (galaxy, universe, orbit, etc.)

Patterning: The similarities between objects in space (ex. Orbiting the sun)

Mental Modeling: Explain what would happen if... (Ex. What would happen if an asteroid came near a black hole... Why?)

Creativity: Would you want to go up into space? Why or why not? What do you think you would see?

Possible Assessments:

- Research a planet – complete outline, make a model of the planet, and write about the planet (edit and write final copy). Present project to the class.
- Complete various projects to demonstrate understanding of terms and definitions
- Circular dioramas in-the-round demonstrating rotation and revolution.
- Accordion booklet of eclipse
- Universe space travel brochure explaining various aspects of our universe and galaxy.
- Using numerical data to compare the size of a planet distances from the sun, and temperature.
- Form generalizations about the planets based on the numerical data.
- Complete planet chart
- M/C, short answer test
- Homework/project and paper
- Read “The Planets” by Seymour Simon (p.168-176 [Time for Dreams](#))
Take notes on this story.

Character traits addressed in unit

Perseverance: Mae Jamison