**1st Grade Core Knowledge**

**Science**

**Solar System**

**Summary:** In this domain, students will learn that the sun is the center of our solar system and that it provides energy, light and heat. They will know the phases of our moon, be able to identify the eight planets and be introduced to constellations. They will understand earth’s place in the solar system and what causes day and night.

**The Big Idea:** The solar system-our home in space-consists of the sun, the planets, and other celestial bodies that travel around it.

**Colorado State Standards:**

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| K.3.1.a. Investigate, explain, and describe that the Sun provides heat and light to Earth  4.3.1.a. Gather, analyze, and interpret data about components of the solar system  4.3.1.b. Utilize direct and indirect evidence to investigate the components of the solar system  4.3.1.c. Gather, analyze, and interpret data about the Sunrise and Sunset, and Moon movements and phases |

**Common Core Standards**:

RL1.1 Ask and answer questions about key details in a text.

RL1.2Retell stories, including key details, and demonstrate understanding of their central message or lesson.

RL1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.

RI1.10 With prompting and support, read informational texts appropriately complex for grade 1.

L1.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

a. Print many upper- and lowercase letters.

**Core Knowledge Unit:**

1. Astronomy: Introduction to the Solar System
   1. Sun: source of energy, light, heat
   2. Moon: phases of the moon (full, half, crescent, new)
   3. The eight planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune)
   4. Stars
      1. Constellations, Big Dipper
      2. The sun is a star
   5. Earth and its place in the solar system
      1. The earth moves around the sun; the sun does not move.
      2. The earth revolves (spins); one revolution takes one day (24 hours).
      3. Sunrise and sunset
      4. When it is day where you are, it is night for people on the opposite side of the earth.

**Core Knowledge Language Arts:**

1. Listening and Speaking

A. Comprehension and Discussion of Read-Alouds

* Retell key ideas
* Prior to listening to a read-aloud, identify what they know and have learned that may be related to the specific story or topic to be read aloud.
* Listening and Speaking

1. Writing

B. Language Conventions

* Form letters, words, phrases, and sentences to communicate thoughts and ideas.

**Previous Unit:** The Earth

**Prior Knowledge:**

Kindergarten

* Seasons and Weather

**Next Unit:** The Human Body

**What Students will Learn in Future Grades:**

Second Grade

* Seasonal changes
* The earth’s orbit around the sun

Third Grade

* Astronomy

Fourth Grade

* Meteorology

Sixth Grade

* Astronomy: Gravity, Stars and Galaxies

**Cross Curricular Links:**

Science Unit Connection: Ocean tides – high and low

Math: Ordinal Numbers

History: Ancient Civilization gods

**Additional Resources:**

For teachers and students:

* *Kids Discover Magazines,* published by Kids Discover