02 - Our Solar System

Content Area: **Science**
Course(s): **Astronomy**
Time Period: **Semester 1**
Length: **5 weeks**
Status: **Published**

Standards

	Developing and Using Models
	Patterns
	Analyzing and Interpreting Data
	Cause and Effect
	Obtaining, Evaluating, and Communicating Information
	Stability and Change
	Systems and System Models
	Constructing Explanations and Designing Solutions
	Energy and Matter
	Scale, Proportion, and Quantity
HS-ESS1	Earth's Place in the Universe
HS-ESS1-1	Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.
PS3.D	Energy in Chemical Processes and Everyday Life
HS-ESS1-4	Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.
ESS1.B	Earth and the Solar System
HS-ESS1-6	Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.
ESS1.C	The History of Planet Earth
HS-ESS2	Earth's Systems
ESS2.D	Weather and Climate
HS-ESS2-4	Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate.

Essential Questions

1. What are the characteristics of our nearest neighbors?
2. How does the theory of the solar systems origin explain its observed properties?

3. What are the two kinds of planets in our solar system?
4. What would change about Earth if the moon did not exist?

Enduring Understanding

- Water is not rare in space; liquid water is rare.
- Our solar system has two groups of planets; each with unique characteristics.
- Temperature rather than density caused the differences between the inner and outer planets.
- There is skepticism about the moon landing and how to sift through the evidence

Assessments

https://docs.google.com/document/d/1wR7bQF-8AQoRrt0g4C3hKja0yjwDjC9_BiAmONWbTcI/edit?usp=sharing