

Unit: Earth's Systems:

Duration: 4-8 weeks

Desired Results

Performance Expectations:

5-PS2-1 Support an argument that the gravitational force exerted by Earth on objects is directed down.

5-ESS1-1 Support an argument that the apparent brightness of the sun and stars is due to their relative distances from the Earth.

5-ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

5-ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

5-ESS2-2 Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources

Transfer

Meaning

ENDURING UNDERSTANDINGS: Crosscutting Concepts

Students will understand that...

- Cause and effect relationships are routinely identified and used to explain change.
- Natural objects exist from the very small to the immensely large.

Meaning

Acquisition

Disciplinary Core Ideas

Students will know...

- The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center.
- The sun is a star that appears larger and brighter than other stars because it is closer. Stars range greatly in their distance from Earth.
- The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of

Science and Engineering Practices

Students will be skilled at...

1. support an argument with evidence, data, or a model.
2. A system can be described in terms of its components and their interactions.
3. Describe and graph quantities such as area and volume to address scientific questions.
4. Represent data in graphical displays (bar graphs, pictographs and/or pie charts) to reveal patterns that indicate relationships.
- 5.

and environment.

the sun, moon, and stars at different times of the day, month, and year.

- Nearly all of Earth's available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere.
- Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather.

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Evidence		
Evaluation Criteria	Assessment Evidence	
	PERFORMANCE TASK(S):	
	OTHER EVIDENCE: McMillan McGraw-Hill Science, Gizmos, Mobymax	
	Unit assessment	
Learning Plan		
<i>Summary of Key Learning Events and Instruction</i>		