Science
Grade 8
2nd Nine Weeks

This academic overview can be used to monitor and support your child's at -home learning progress.

Unit 3: Sun, Earth, and Moon

Student Learning Targets

- I can model the revolution of the Earth around the Sun
- I can describe how the rotation of the Earth causes day and night.
- I can describe how the Earth's tilt and revolution causes the seasons.
- I can identify whether a specific city anywhere on the Earth is experiencing day or night and which season based on the position of the Earth in relation to the Sun.

Questions to Check for Unit Understanding

- Why do lunar phases occur in such predictable patterns?
- How long does each individual phase of the lunar cycle last?
- During which moon phases are tides particularly stronger and why?
- How does the tilt of the Earth impact the seasons within each hemisphere?

Key Academic Vocabulary

- Rotation: the spinning of Earth on its axis that causes day and night to occur
- Revolution: the movement of one object around a center or another object
- Axis: the imaginary line through Earth that extends from the North Pole to the South Pole and is the center of Earth's rotation
- Lunar Cycle: the Moon's repeated pattern of movement and changes in appearance due to its position relative to Earth and the Sun

Unit 4: Global Weather Patterns

Student Learning Targets

- I can identify the weather associated with the different weather symbols.
- I can predict the weather for an area using a weather map.
- I can explain how oceans affect the weather and climate for surrounding areas.
- I can explain how hurricane are formed.

Questions to Check for Unit Understanding

- How does convection affect ocean currents as well as global winds?
- How are air masses and pressure systems represented on a weather map?
- How does the type of pressure affect the weather an area will experience?
- What factors contribute to the formation of weather systems such as hurricanes?

Key Academic Vocabulary

- Convection: heat transfer caused by the rising of hotter, less dense fluids and the falling of cooler, denser fluids
- Weather: the day-to-day state of the atmosphere
- Weather Map: a map or chart that shows the weather conditions at a specific point in time over a specific region

Unit 5: Changes that Affect the Earth

Student Learning Targets

- I can describe the structure of the planet.
- I can explain convergent plate boundaries.
- I can explain divergent plate boundaries.
- I can explain transform plate boundaries.
- I can predict how landforms will change over time.

Questions to Check for Unit Understanding

- How did Alfred Wegener's findings contribute to our current knowledge of crustal features and their formation?
- What evidence has been found that supports the theory of Continental Drift?
- How does the movement of tectonic plates create the Earth's crustal features?
- How can forces such as erosion, deposition and weathering change features on a topographic map?

Key Academic Vocabulary

- Topographic Maps: a map showing changes in elevation of Earth's surface
- Erosional Features: Earth's surface that shows evidence of the natural processes of weathering and the removal and relocation of weathered materials