



Science

Grade 7

4th Nine Weeks

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

Unit 7: Environmental Interactions

Student Learning Targets

- I can identify and explain how characteristics of different environments support different organisms.
- I can identify and list basic needs for varying organisms that are found in different environments.
- I can describe and explain how biodiversity contributes to the sustainability of an ecosystem.
- I can describe the role of ecological succession.
- I can differentiate between primary and secondary succession.

Questions to Check for Unit Understanding

- How do the characteristics of an environment affect the variety of organisms that will inhabit it?
- In what ways is variability related to biodiversity? In turn, how is biodiversity related to sustainability of an environment?
- How does ecological succession begin the development of species in a new community, as well as, the rebirth and increase of diversity in another community?
- How does an ecosystem respond to an environmental disturbance, such as a fire?

Key Academic Vocabulary

- Biodiversity - the number of different species of plants and animals in an area
- Biome - a type of biological community defined by its predominant plants animals, and environmental conditions
- Climax community- a relatively stable state of succession or the end product of succession
- Microhabitat - a very small, specialized habitat, such as the space under a rock
- Ecological succession - a series of changes in the species composition of a community over time

Unit 8: Changes to Environmental Systems

Student Learning Targets

- I can describe how catastrophic events will impact the ecosystem
- I can predict how catastrophic events will impact the ecosystem
- I can demonstrate the effects of human activity on groundwater and surface water in a watershed using a model.
- I can determine the source of groundwater and surface water pollution as either point source or nonpoint source pollution

Questions to Check for Unit Understanding

- What are some catastrophic impacts on the ecosystem caused by floods, hurricanes, and tornadoes?
- How do the natural factors of weathering, erosion, and deposition affect the topography and other characteristics of the ecoregions of Texas?
- What is groundwater and surface water?
- How can we monitor the impacts of human activity on our watersheds?
- What is the difference between mechanical and chemical weathering?

Key Academic Vocabulary

- Aquifer - an area of permeable rock underground that holds or transmits groundwater; pumps are used to retrieve water from these areas
- Permeable - rock or rocky material that water can flow through
- Water Table - the top of the saturation zone, below which water fills all open spaces within the rock
- Watershed - an area of land where the surface water and groundwater drain into a particular body of water
- Groundwater - water that collects in cracks and pores in underground soil and rock layers
- Point source water pollution - a single identifiable and localized source of water pollution
- nonpoint source water pollution - pollutants introduced into water that are without a specific source location