



Level 5 • Module 2

Ecosystems with Spotlight Lessons on Weather and Climate

Lesson Overview

Your student is studying how the plants and animals around a mangrove tree interact to understand how ecosystems work. In Spotlight Lessons on Weather and Climate, your student is analyzing weather patterns and learning about the role of the water cycle in weather.

Classroom activities for this module include:

- Planning and conducting an investigation to determine the source of plant matter
- Modeling how matter cycles among plants, animals, decomposers, and the environment
- Modeling the flow of energy through an ecosystem
- Developing ways to reduce the impact of the emerald ash borer on ecosystems
- Collecting weather data and comparing it to historical weather data

Conversation Starters

Support your student's learning with these talking points:

- Talk about the plants and animals in your community and how they form an ecosystem.
- Discuss how you use the energy from your food. Work together to trace the energy in your food back to the Sun.
- Discuss how humans affect the plant and animal life in your community.
- Talk about phenomena that occur because of the processes in the water cycle, such as puddles drying or dew forming on grass.

Activities

Have fun with these related activities at home:

- Observe a tree and look for the ways it supports other organisms around it.
- Create a food web featuring a local organism.
- Research invasive species in your area. Find out what local agencies or conservation groups are doing to help.
- Participate in a park cleanup and talk about why it is important to maintain shared green spaces.
- Research historic weather data to find weather records, such as most precipitation or hottest and coldest days.



ADDITIONAL RESOURCES

Visit your local library or use an online library to explore topics related to the module, such as trees, invasive species, the water cycle, and properties of soils.



Learn more about mangroves at <https://ocean.si.edu/ocean-life/plants-algae/mangroves>.

Visit the mangroves in Everglades National Park at <https://www.nps.gov/ever/learn/nature/mangroves.htm>.