



Teacher Guide

UNIT 3 LESSON 1: ECOSYSTEM VS HABITAT

Theme

All species within an ecosystem are connected and the actions of one can affect the survival of others.

Missouri Science Standards: LS2.A.2; LS2.C.1

Vocabulary

Habitat - The natural home or environment of an animal, plant, or other organisms.

Ecosystem - A biological community of interacting organisms and their physical environment.

Food Web - Big, tangled, overlapping food chain systems that include every plant and animal in a habitat.

Biodiversity - The diversity/variety of life on earth, or in an ecosystem.



Video 1: Home Sweet Habitat

Video Description: This video will act as a review of what a habitat is and why it is important. It touches on how animals are suited for living in one place over another and how habitats form Food Webs. Made by Crash Course Kids

Teacher Notes:

- From a series based on 5th-grade science but could be an important review for 6th graders. If you are teaching 7th or 8th grade this video can likely be skipped.

Link: <https://www.youtube.com/watch?v=p15IrEuhYmo>

Follow-up Questions:

1. True or False. Animals don't just need a place to live. They also rely on other living and non-living things around them to survive.
2. What are the four things every living organism needs to survive?
3. Fill in the blank. A _____ is a big, tangled system that includes every plant and animal in a habitat.
4. True or False. Seemingly small changes in habitat can affect what plants and animals might live there and the animals and plants themselves are built to live in that habitat.

Video 4: What is an ecosystem?

Video Description: This video introduces the concept of an ecosystem to help your students better understand the difference between habitats and ecosystems. Made by The Wild Report.

Video Link: <https://www.youtube.com/watch?v=7cRgKOqGOOE>

Teacher Notes:

- Again, maybe more of a review for older students. For a much more advanced video check out this video made by Crash Course: <https://www.youtube.com/watch?v=v6ubvEJ3KGM>.
- Note: The follow-up questions below do not apply to the Crash Course video.

Follow-Up Questions:

1. Fill in the blank. An ecosystem is a _____ of interacting plants, animals, and their surroundings.
2. What are three factors that impact ecosystems?
3. True or False. Biodiversity helps ecosystems recover from changes such as wildfires, diseases, or invasive species.

Activity 1: King Rail Research

Activity Summary: For this activity, students will do their own research to discover all they can about the King Rail and its habitat requirements. In addition to learning the life history of the King Rail, students will also learn about the reliability of information sources.

Teacher Notes

- This activity is essential for Lessons 2 and 3 in this unit. The information they gather will aid them in the activities for the next two lessons.

Activity 2: Draw a King Rail!

Activity Summary: For this activity, students will learn to draw birds by first being guided through how to draw a Long-billed Curlew with David Allen Sibley of Sibley Field Guides. Then they will draw a King Rail of their own to become more familiar with the subtle colors and patterns of their plumage. Drawing can be a key skill when recording observations. The activity will also include measurement and unit conversion.

Teacher Notes

- *This activity may be best assigned as homework. It is a great art project that can help the students observe closely, but the time it takes each student can vary greatly.*

Concluding Questions/Assessment

*Student worksheet included in packet.

Teacher Note: For these concluding questions, it may be worthwhile to let the students use their own notes to answer the questions.

1. What are the key characteristics to be able to correctly identify a King Rail?
Write a brief description of their behavior and habitat and then draw a picture below the description labeling all the key physical characteristics.
2. What does the King Rail eat and where can it find this food? Be specific.
3. What type of nest does a King Rail make and what materials does it use?
4. What does the King Rail NEED in its habitat to survive and reproduce? Be as specific as possible.

