



Teacher Guide

UNIT 4 LESSON 3: INVASIVE SPECIES

Theme

Invasive species arrive and thrive due to their own species characteristics and ecological disturbance.

Missouri Science Standards: LS2.A.2; LS4.B.1

Vocabulary



Invasive species - A species that is non-native and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Government subsidy - A subsidy or government incentive is a form of financial aid or support extended to an economic sector (business or individual) generally with the aim of promoting economic and social policy

Limiting factor - anything that constrains a population's size and slows or stops it from growing.

Video 1: Invasive Species 101 | National Geographic

Video Description: Invasive species cost the global economy over a trillion dollars each year. Find out how these non-native organisms are introduced into an ecosystem, how they impact local communities, and which measures can be taken to help prevent the introduction of invasive species.

Video Link: <https://www.youtube.com/watch?v=gYNAtw1c7hI>

Teacher Notes:

- Video is 3 min and 31 sec long.

Follow-Up Questions:

1. Fill in the blanks. Invasive species are _____-_____ organisms that cause considerable _____ when introduced to a new area.
2. True or False? The introduction of invasive species is often associated with human activity.
3. True or False? Invasive species are never introduced intentionally.
4. What is one way we can help prevent the spread of invasive organisms?

Video 2: Missouri Department of Conservation - Invasive Species Awareness for Memorial Day Traveling

Video Description: The Missouri Department of Conservation's Greater St. Louis Area Media Specialist talks to The McGraw Show about preventing the spread of invasives.

Video Link: https://www.youtube.com/watch?v=JIaY_UGtmIY

Teacher Notes:

- Video is 6 min long.
- This video is a recording of a radio show so there aren't many graphics, but they do post pictures of the invasives as they talk about them.

Follow-Up Questions:

1. True or False? An invasive species can be a plant, animal, aquatic, or terrestrial.
2. Why is the spread of invasive species becoming more common today?
3. Where should you get your firewood to prevent the spread of invasives?
4. What is one thing boaters can do to prevent the spread of zebra mussels?
5. Where can you go for more information?

Video 3: The Threat of Invasive Species

Video Description: Massive vines that blanket the southern United States, climbing as high as they uproot trees and swallow buildings. A ravenous snake that is capable of devouring an alligator. Rabbit populations that eat themselves into starvation. These aren't horror movie concepts - they're real stories. But how could such situations exist in nature? Jennifer Klos gives the facts on invasive species. Lesson by Jennifer Klos, animation by Globizco. Video by TED ed.

Video Link: https://www.youtube.com/watch?v=spTWwqVP_2s

Teacher Notes:

- Video is 4 min and 45 seconds long.



Follow-Up Questions:

1. True or False? Invasive organisms are harmful not because of what they are, but where they happen to be.
2. Fill in the blanks. The kudzu vine was introduced into the southeastern United States and subsidized by the government to fight _____.
3. What things help control the population size of Burmese Pythons in their native Asian habitats?
4. Fill in the blank. A climate perfect for a year-long _____ reproduction is one factor that allows the European Rabbit's population to skyrocket in Australia.
5. What are two limiting factors that restrict the size or range of a species?

Video 4: Invasive Species Characteristics

Video Description: This video was the winner of the INSTRUCTION category of the 2012 ESA YouTube Your Entomology contest. The video by Ellen Shcofield and David Andow of the University of Minnesota uses animation to explain the harm of invasive species for outreach programs.

Video Link: https://www.youtube.com/watch?v=HAY_UsGjyZk

Teacher Notes:

- Video is only 2 min long.

Follow-Up Questions:

1. What are some of the characteristics of Frank's lifestyle that allowed Frank to take over the island Oliver lives on?
2. True or False? Moving from one habitat to a new one was always a fast process.

Activity: Invader X

Activity Summary: In this activity students will use their new knowledge about invasive species to create an invasive species of their own to exercise their thinking on how an invasive species works.

Teacher Notes:

- This activity requires an additional worksheet that is downloadable from the Virtual Nature School website.

Concluding Questions/Assessment

*Student worksheet included in packet.

1. How would you define an invasive species? Give an example.
2. What is one reason a species may be introduced into a new environment? Provide an example.
3. What are two ways we can prevent the spread of invasive species in our environment?
4. When you created your own invasive species, what characteristics allowed it to take over its new environment?
5. Have you ever noticed a species plant that seemed to dominate an area near you? What did it look like? Were you able to identify it?

