

RESOURCE LIBRARY
UNIT

Interrupted Migrations

In this unit, students teach their community about how humans interrupt animal migrations and inspire them to care about these human impacts. The unit begins with an analysis of a particular geographic area and mapping of human activity. Students then learn about why and where animals migrate in order to create a migratory route map and a description of the setting. Students create an original game as their final project.

GRADES

6 - 8

SUBJECTS*Biology, Ecology, Conservation, Geography, Social Studies, Storytelling***CONTENTS**

3 Lesson plans

For the complete unit with media resources, visit:

<http://www.nationalgeographic.org/unit/interrupted-migrations/>

In collaboration with



UNIT OVERVIEW

Humans have been changing the world even before they settled into agricultural communities. Since settlement, we have seen an acceleration in the movement of people from rural environments to urban environments and in population growth, which have increased the ways humans have made the environment work for their needs. This environmental impact has often come at the cost of migrating species. While these changes have made life easier for humans, we are morally obligated to mediate some of the negative impacts our developments have had on migratory routes.

Using games to teach content is an effective way to both educate and inspire. Over the course of this unit, students will construct elements, locate and identify human impacts on a particular region of the United States, conduct independent research, and translate that research into a map of human impacts on particular regions of the United States. They will build three sets of gameplay cards: one that teaches human impacts on the environment, one that teaches about migratory species, and one that teaches how humans have helped migrating species. They will also create a map of a specific region that shows how humans are interrupting migration and a layer for that map that shows migratory routes. Finally, students will use those pieces to create an original game by coming up with an objective for their game and rules of play.

Use this [unit at a glance](#) to explore an overview of the unit structure.

Unit Driving Question: How can human activities help or hinder animal migrations?

LESSON 1: MAPPING HUMAN INTERRUPTIONS TO MIGRATION | 3 HRS 20 MINS



Students learn how human activity has impacted animal migration. They begin by watching a video of elk migration through Yellowstone National Park to understand what animal migration is, why elk migrate, how far they travel, and why humans should care. They then imagine themselves back in time and think about how they would adapt the land to better meet the evolving needs of their developing community. Finally, students learn more about specific ways people have altered the environment, explore one geographic area in the United States, and map the human activity in that region. This lesson is part of the [Interrupted Migrations unit](#).

LESSON 2: MAPPING MIGRATORY ROUTES | 3 HRS 20 MINS



Students learn about how and why animals migrate and then take a deep dive into the migratory patterns of species that are impacted in a certain geographic area. After researching three specific migratory animals, students map their migratory routes on their game boards. Students consider how to design their game to highlight conflicts between human development and animal migration, and receive peer feedback on their initial game boards. This lesson is part of the [Interrupted Migrations unit](#).

LESSON 3: HELPING ANIMALS MIGRATE | 4 HRS 10 MINS



Students learn about the positive actions that help support migrating animals. Then they create an original board game that showcases what they have learned and inspires players to care about animal migration and protect migratory routes. Students test each other's game prototypes at a culminating game fair. This lesson is part of the [Interrupted Migrations unit](#).

BACKGROUND & VOCABULARY

Vocabulary

Term	Part of Speech	Definition
altitudinal migration	<i>noun</i>	migration path up and down elevation gradients.
animal migration	<i>noun</i>	process where a community of animals leaves a habitat for part of the year or part of their lives, and moves to habitats that are more hospitable.
assist	<i>noun</i>	to help or support.
border	<i>noun</i>	natural or artificial line separating two pieces of land.
cardinal direction	<i>noun</i>	one of the four main points of a compass: north, east, south, west.
climate	<i>noun</i>	all weather conditions for a given location over a period of time.
corridor	<i>noun</i>	hallway, or connecting passage of land.

Term	Part of Speech	Definition
interconnected	<i>adjective</i>	connected with one another.
irruptive migration	<i>noun</i>	dramatic migration that occurs at an irregular time or location.
key	<i>noun</i>	an explanation of symbols and abbreviations used on a map, also known as a legend.
latitudinal migration	<i>noun</i>	migration route that follows a north-south movement.
map	<i>noun</i>	symbolic representation of selected characteristics of a place, usually drawn on a flat surface.
map symbol	<i>noun</i>	representation of one piece of data displayed as part of a larger representation of spatial information.
mapping	<i>noun</i>	making and using maps.
migration	<i>noun</i>	movement of a group of people or animals from one place to another.
migration route	<i>noun</i>	path followed by birds or other animals that migrate regularly.
movement	<i>noun</i>	the act, process, or result of moving.
multi-generational migration	<i>noun</i>	migration route that takes generations of a species to complete.
political boundary	<i>noun</i>	imaginary line separating one political unit, such as a country or state, from another.
range	<i>noun</i>	agricultural land where livestock graze.
region	<i>noun</i>	any area on Earth with one or more common characteristics. Regions are the basic units of geography.
regional geography	<i>noun</i>	branch of geography devoted to the study of characteristics of a specific region.
species	<i>noun</i>	group of similar organisms that can reproduce with each other.
watershed	<i>noun</i>	entire river system or an area drained by a river and its tributaries.
waterway	<i>noun</i>	body of water that serves as a route for transportation.
wildlife	<i>noun</i>	organisms living in a natural environment.
Yellowstone National Park	<i>noun</i>	large national park in the U.S. states of Wyoming, Idaho, and Montana.

