

# Animal Migration Activity Guide

Name: \_\_\_\_\_

Date: \_\_\_\_\_



As the seasons start to change, you might notice that certain animals are on the move. This is known as an animal migration. A **migration** occurs when animals of a single species move a great distance to nest or mate, or as a result of a change in regional temperatures or food availability. You may have even seen some animals in migration without realizing they were undertaking such an important journey.

In this activity guide, you'll learn about the migrations of monarch butterflies, birds, and salmon, and find ways to get involved through citizen science!

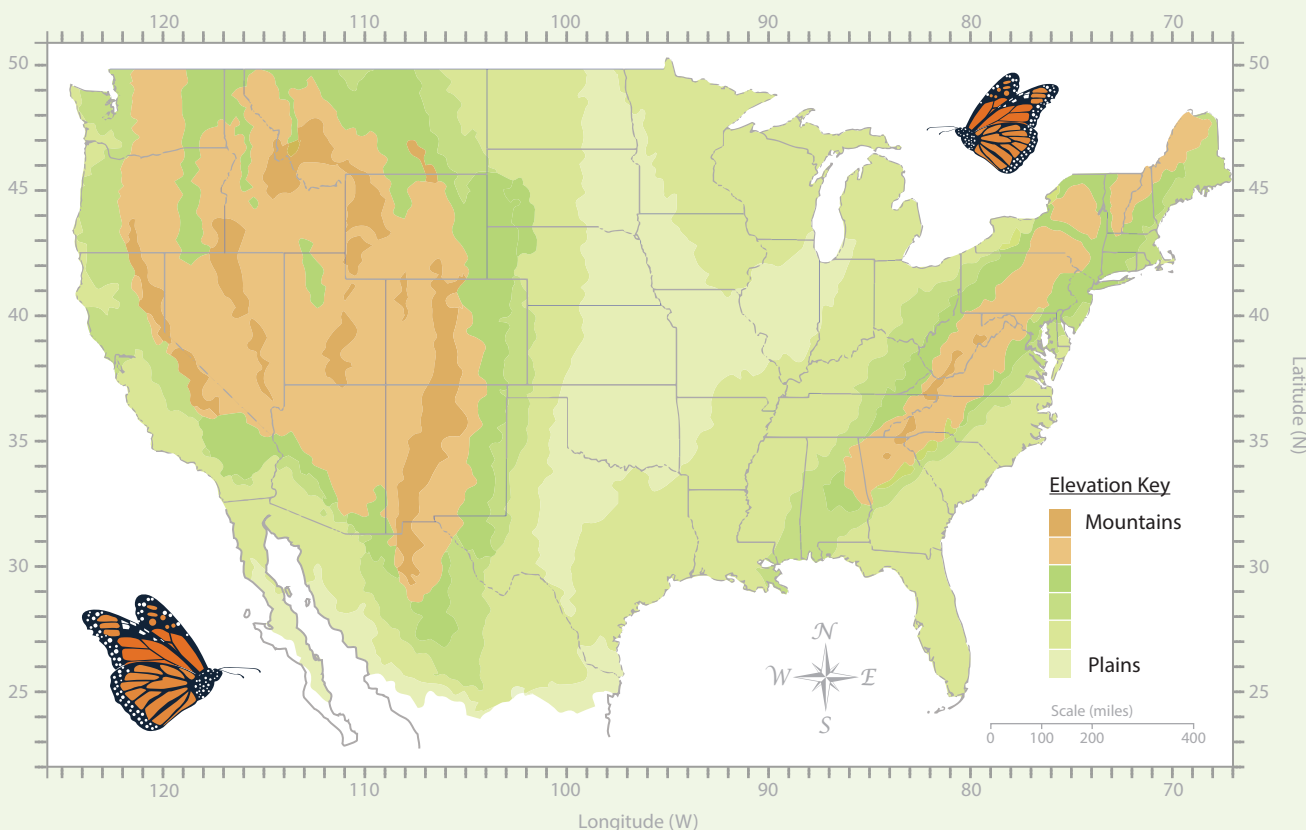


## Monarch Mapping

Monarchs are the only species of butterfly that make a two-way migration each year. Some will travel up to 3,000 miles between their winter and summer territories. Use the GPS coordinates provided in the table below to plot the migration routes of four monarch butterflies as they make their way south for the winter. The first number is the latitude (north-south) and the second is the longitude (east-west). Connect each series of coordinates with a line to see the flight pattern of each butterfly.

Why do you think each one chose the path it took?

**Hint:** Think about challenges the landscape might present or their needs along the way.



<b>Monarch 1</b>
46N, 69W
41N, 75W
34N, 80W
31N, 92W
<b>Monarch 2</b>
41N, 81W
39N, 89W
35N, 96W
26N, 100W
<b>Monarch 3</b>
49N, 106W
43N, 103W
36N, 101W
28N, 102W
<b>Monarch 4</b>
44N, 123W
38N, 121W
33N, 116W
29N, 111W

## Make Your Own Bird Feeder

For birds and other animals, finding food and water during a migration can be a real struggle. Exhaustion from flying or walking such long distances, combined with the unfamiliar territory, makes it more difficult to stop and search for the next meal or drink of water. You can help out birds on the move by providing a simple bird feeder or bird bath outside your home. Follow these easy steps to make your own bird feeder.

### Materials:

- pine cone
- peanut butter
- bird seed (any type)
- string

\*You can also use a cardboard toilet paper tube instead of a pine cone

\*If you have a peanut allergy, you can use Crisco or any other spreadable nut or seed butter



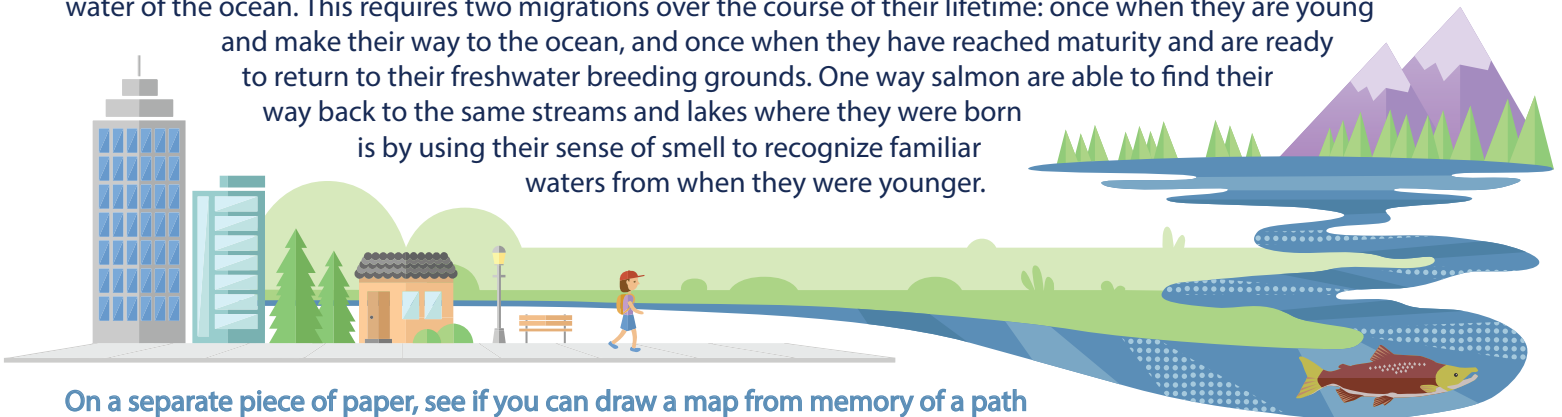
**1)** Tie the string to the top of the pine cone with enough left over to hang it from a tree or overhang. **2)** Coat the pine cone in peanut butter. **3)** Roll the pine cone in bird seed so that the seeds stick to the peanut butter. **4)** Hang your feeder on a tree branch or from an overhang. If you hang it near a window, make sure it is less than three feet away from the window glass or more than 30 feet away to avoid collisions. **5)** Watch the birds stop by for a snack!

Adapted from the Cornell Lab of Ornithology

## Create a Mental Map

Animals use many different senses to guide them during migration. All together, these sensory cues create a mental map of landmarks like mountains, forests, rivers, or coastlines that help tell an animal where to go. Recognizable sounds and smells can even be part of the map too!

Pacific salmon are born in the fresh water of northern streams and rivers, but spend most of their adult lives in the salt water of the ocean. This requires two migrations over the course of their lifetime: once when they are young and make their way to the ocean, and once when they have reached maturity and are ready to return to their freshwater breeding grounds. One way salmon are able to find their way back to the same streams and lakes where they were born is by using their sense of smell to recognize familiar waters from when they were younger.



On a separate piece of paper, see if you can draw a map from memory of a path you are familiar with--maybe it is from home to school or from your bedroom to the front door. Try to include as many details as you can. Are there any sounds or smells included in your map?

## Citizen Science

Citizen science projects like the ones below let you help scientists track animals as they undertake large-scale migrations. Visit any of the projects below and learn how to get involved locally. Then add your observations to the national effort!

[Journey North](#)

[MonarchLIVE](#)

[eBird](#)