
3rd/4th Grade Activity: Bird Migration

Birds migrate when food is scarce. Birds that stay in one area consume much of the food source in that particular area, forcing them to migrate to places where food is more abundant.
(NGSS Disciplinary Core Ideas LS2 Ecosystems: Interactions, Energy, and Dynamics)

Pre-Activity Questions

- Why do animals migrate?
- What kind of variations in frequency (how often something happens), duration (how long an event takes), and distance exist between different types of migration?
- Are there animals that migrate to or from the place where you live? When do they come and go, and why?

Activity

- Have you ever noticed that some birds are only around during some parts of the year, while others stay all year long? This movement of animals from one place to another is called a migration. It isn't only birds that migrate. Many different types of animals do, too! There are lots of reasons why animals migrate. Two of the most common reasons are food and temperature. If the temperature is getting too cold, an animal might choose to migrate somewhere where the temperatures are warmer so that they don't freeze. Animals also migrate when the local supply of food is too small to support the population. Some migrations take place over many days as the animals travel hundreds of miles. Others are shorter in both time and distance. Lets see if we can create a miniature backyard bird migration using food as the primary cause for migrating.

Create your Own ...

Materials

- A location where you can safely feed birds while observing
- Wild bird seed; unsalted peanuts or sunflower seeds; suet cakes or millet
- Two small animal safe bowls or plates
- Measuring tape
- Stopwatch
- Pen/pencil
- Scratch paper or Bird Observation Sheet
- Clipboard

Steps

1. Use the **measuring tape** to place the two **animal safe bowls or plates** at least 20 feet apart from each other. These are your feeding stations.
2. Place $\frac{1}{2}$ of your **food** at one feeding station and the remaining $\frac{1}{2}$ at the other.
3. Using the **stopwatch** to keep track of time, count the number of birds at each station at an interval of every two minutes. Record your data on your **scratch paper** or use the **Bird Observation Sheet**.
4. Once bird feeding station one is empty, continue observing both feeders at intervals of every two minutes, what has changed about your bird count?
5. What happens if the feeding stations are moved around? Positioned closer or further away from each other? In the sun or in shade?

Post-Activity Reflection

- What happened to the number of birds around bird feeding station one when the food ran out? Did it increase, decrease, or stay the same? What about around bird feeding station two?
- When bird feeding station one was empty, did the birds migrate to bird feeding station two?
- Do different species of birds behave differently in this experiment? How many different species can you count and identify?
- What happens if the bird feeding stations alternate feeding the birds? Will the birds keep migrating back and forth between the two feeders? Design an experiment to find out.
- Use different food at the two stations. Do you see different types of birds? More or less at one food station?

Bird Observation Sheet

Tally the number of birds you see in 2-minute intervals using the table below.

Feeding Station A

2-minutes	4-minutes	6-minutes	8-minutes
Total # of birds:			

Feeding Station B

2-minutes	4-minutes	6-minutes	8-minutes
Total # of birds:			

Conclusions:
