

The Wilderness Center Learning Guide

Animal Migration



Back ard Explorations



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Featured Artwork

The Navigator by Kristen Cliffl

Bat by Thomas Cornell

Mallards Descending by Benson Bond Moore



Animal Migration

Lesson Overview

These three art pieces all depict animals in motion (or preparing to move). Students will understand that animals can move to find suitable habitat. Some animals travel far, and some stay close to home. Students will recognize that there are perils along the journey for many animals.

Details

- This lesson contains a teacher resource page for each of the three pieces of art. These pages offer some basic questions for classroom discussion and fun facts about the wildlife.
- There are three worksheets - one based on each piece of art. Instructions for each worksheet are included in the lesson plan.
- A student reading page provides an overview of animal migration.
- If you need assistance, contact Carrie Elvey – carrie@wildernesscenter.org

Ohio Science Standards

K.LS.2: Living things have physical traits and behaviors, which influence their survival.

1.LS.1 Living things have basic needs, which are met by obtaining materials from the physical environment.

1.LS.2: Living things survive only in environments that meet their needs.

2.LS.1: Living things cause changes on Earth.

3.LS.3: Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.

4.LS.1: Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.



The Navigator

By Kristen Cliffl

Do birds travel by boat?

What kind of bird is this?

Where do you think it is going?

What is it looking for?

Birds don't really travel by boat, but people used to believe that hummingbirds would ride South on the backs of Canada Geese. Others believed that geese flew to the moon for the winter. Today, we know about bird migration through technology such as bird bands and gps trackers.

In the early 1900's bluebirds were common across Ohio. Then, due to the use of DDT, habitat loss, and human factors, bluebird populations declined by up to 90%. In the 1930's people began putting up artificial nest boxes, and, today, the population is healthy and steady.

Bluebirds in the northern part of their range are completely migratory. Some fly as far as 2,000 miles. Ohio bluebirds don't always go very far in the winter. Many will stay and eat soft fruits when there are no insects available.

Bluebirds prefer open habitat like fields, parks, and backyards.

Bluebirds are secondary cavity nesters, meaning they do not excavate their own cavities, but use those made by woodpeckers or natural cavities.

The oldest known Eastern Bluebird was at least 10 years, 6 months old.

Bluebirds actually have no blue pigment. Their blue color comes from microstructures in the feather shaft which reflect light.

For more information about bluebirds, and to find nest box plans, visit the Ohio Bluebird Society – ohiobluebirdsociety.org



Bat by Thomas Cornell

What do bats eat?

Can they find food in the winter?
Why might a bat hibernate?

Where would a bat find a safe
place to hibernate?

Bats make up about 1/5 of all mammal species.

All the modern bat families have been around for at least 33 million years.

Bats belong to a group called Chiroptera, which means “hand wing”

Some Ohio bats, like the Little Brown Bat migrate short distances to caves and old mines to hibernate. Others, like the Hoary Bat, travel long distances south to hibernate.

Many bats, like the Big Brown Bat are social, roosting in large summer maternity colonies of up to 200 individuals. Others, like the Eastern Red Bat, are solitary.

Baby bats are called pups and can weigh up to a third of the mothers body weight when born (that’s like a 90 pound woman giving birth to a 30 pound baby!).

Ohio bats are facing lots of threats, especially White-nose Syndrome, a fungal infection that can kill hibernating bats.

All Ohio bats are insectivores, using echolocation to find and catch insects in flight.

Reproductive female bats can consume their body weight in insects each night.

To learn more about bats and their conservation, visit Bat Conservation International – batcon.org



Mallards Descending By Benson Bond

Where are these ducks going?

What are they looking for?

How can you tell which is the male and which the female?

Mallard ducks are one of the most abundant ducks in the world.

Mallards are the ancestors of many strains of domesticated ducks.

Mallards are dabbling ducks, meaning they forage in the water by submerging their heads and necks. They eat aquatic vegetation, insects, snails, tadpoles, small fish, and look for acorns and waste grain on land.

Young ducklings leave the nest within one day of hatching and are led to water by the female.

Many mallards stay in Ohio during the winter, as long as marshes and ponds don't freeze over. The marshes of Ohio are a vital stop-over resting place for many species of ducks that are migrating each Spring and Fall.

Flocks of migrating Mallards have been estimated flying at 55 miles per hour.

The oldest known Mallard was a male at least 27 years old.

Mallard populations fluctuate during time of drought, but the US populations over the past 50 years have been estimated at 5 million to 11 million birds.

Mallards, like other ducks, can be poisoned and die if they ingest lead shot or fishing tackle.

Animals on the Move

Animals need food to eat. They need water to drink. They need shelter to protect them.

Sometimes, these things can be hard to find.

Some animals leave Ohio in the winter. They go south. There they can find insects to eat, water to drink, and lots of places to stay warm.

In spring, animals come back to Ohio. They eat. They build nests and raise babies.

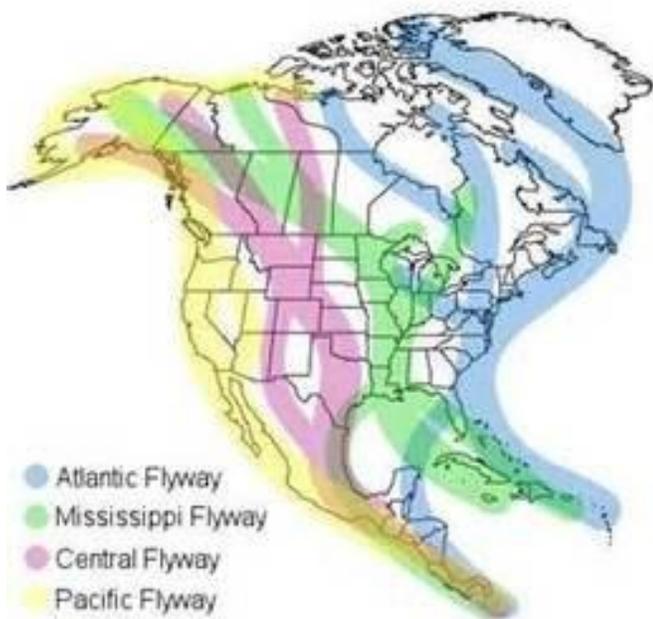
This movement is called **migration**.

Many animals migrate. Some go very, very far. Others move just far enough to find food.

Have you ever travelled? Where did you go?

Where would you like to go?

What would you eat when you got there?



When we travel, we follow roads. Birds have “roads” too. They are called flyways. These are paths that birds follow to migrate. Unlike on our roads, there are no directions in the air. Birds follow rivers, mountains, and the stars to find their way.

Bluebird Habitat Scavenger Hunt

Bluebirds like to live in open fields, backyards, and parks. Like all animals, they need food, water, and shelter. See if you can find these things in your schoolyard. Would your schoolyard or backyard be a good place for a bluebird?



Grass for nest



Insect to eat



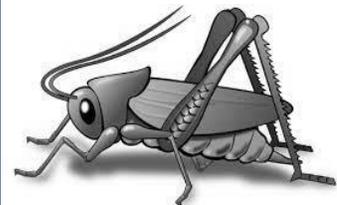
Water



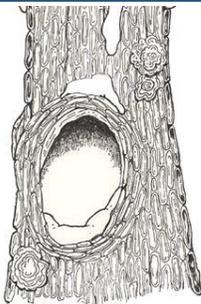
More insects



Small twigs for nest



Even more insects



Cavity for nest



Still more insects!



Place to hide

Did you find everything a bluebird needs to survive? If you did not, what could you do to make your schoolyard a better place for bluebirds?

BAT JOURNEY

Drawn by _____

Pretend you are a bat during migration. Where did you go? What did you see? What did you eat? What funny thing happened on the journey? Draw the events to create a comic book page about your bat journey.

The form consists of four panels for drawing a comic book page. The top panel is a large rectangle. The middle section is divided into two panels by a diagonal line. The bottom section is divided into two panels by a vertical line.

Migration Dangers



Migration can be dangerous. What dangers might a bird face along the way? List three below.

1. _____

2. _____

3. _____

We can help migrating birds by creating healthy and safe places for them to rest along the way. Draw a safe place for mallards to spend the night.

