

What is MIGRATION?

MIGRATION is movement from one place to another.

Did you know that PEOPLE, PLANTS and ANIMALS migrate?

People migrate when they move from their home to another home in a different place.

Plants migrate over time as the climate changes. They move to an area that better fits their needs.

Animals migrate with the seasons from one region to another.

ANIMAL MIGRATION

Animals that migrate are called **migratory animals** or migrants.

Some animals migrate quickly, while others migrate slowly. Some migrate in a few hours or a few days or over many days.

Some may migrate hundreds of miles like the **Pronghorn Antelope**



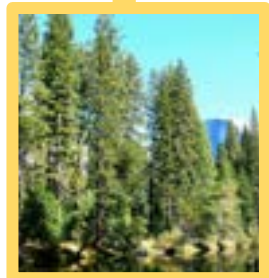
Pronghorn migrate in the state of Wyoming. In spring, they move north from Green Valley Wyoming 150 miles to Grand Tetons Park.

Some may migrate thousands of miles like the **Loggerhead Sea Turtle**



Loggerhead Sea Turtles lay eggs on the coast of NC. As hatchlings grow to adults, they migrate thousands of miles for 15-30 years before returning to beach where they were hatched to lay their own eggs.

Some may migrate just a short way like the **Blue Grouse**



In the winter, the **Blue Grouse** lives in the tops of tall pine forests. They migrate about 300 meters down the pines to the woodlands to nest.

Why do animals migrate?

- ✓ To find a new home
- ✓ To search for food or water
- ✓ To breed
- ✓ To find better living conditions.



When do animals migrate?



Most animals migrate during the spring and fall.

They move from colder regions to warmer ones in the fall and back again in the spring.

How do animals know when to migrate?



The number of hours of daylight

The temperature



How do animals know where to go when they migrate?

Animals find their way using

- ✓ the stars
- ✓ the moon
- ✓ landmarks
- ✓ the sun
- ✓ air currents
- ✓ smell
- ✓ magnetic fields
- ✓ mental maps
- ✓ and several other ways scientists are still studying!



What is a transient animal?

During migration, many animals will stop for a short rest and to get enough food to continue their journey.

These visitors are called **transient animals**.

The **Rose Breasted Grosbeak** and the **Baltimore Oriole** are two **transient birds** that pass through our area to rest and eat as they migrate from Central America to the Northeastern United States.



Baltimore Oriole



Rose Breasted Grosbeak



Look for Migrating Animals

- ✓ Keep your eyes and ears peeled for migratory birds!
- ✓ You can see them at any time of day, or even at night.
- ✓ You may hear them even if you don't see them.



MIGRATORY BIRD

White-throated Sparrows

During the summer, white-throated sparrows live in Canada and New England, where they make nests, lay eggs, and raise their families.

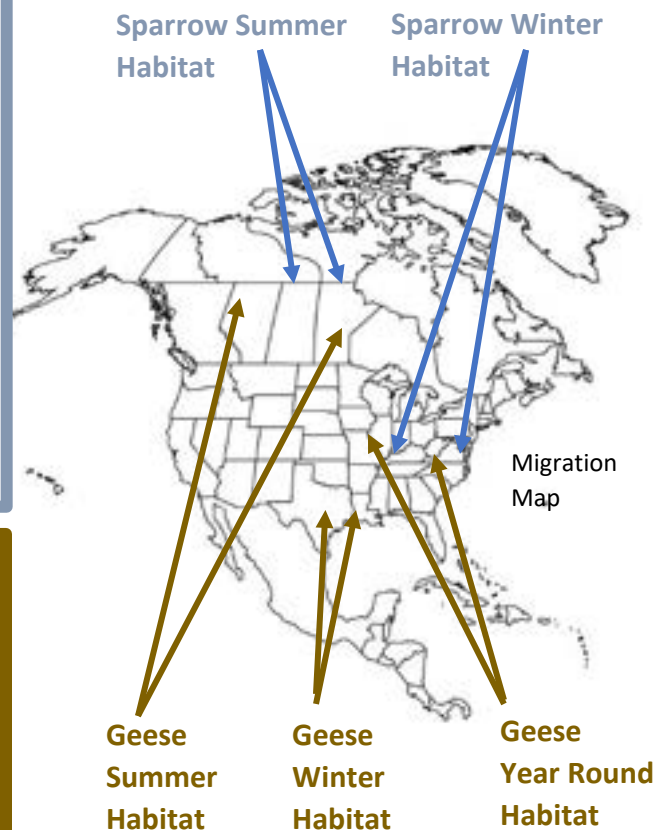
In the fall, they fly south, arriving in the Triangle area of North Carolina in late October and early November.

They are small birds with bright-white throats that are easy to pick out at a distance.

You may hear the males' song at dusk:

"Oh, Sam Peabody, Peabody, Peabody" or

"O sweet Canada, sweet Canada, sweet Canada"



MIGRATORY BIRD

Canada Geese

Geese move south in large flocks, often with loud honks or squawks.

They fly in formation shaped like the letter V.

The goose in front works hardest so they take turns being the goose in front.

Canada Geese who live farther north migrate. They sometimes stop here to rest and eat before moving on.

Some Canada Geese have good living conditions all year in our area so they no longer migrate.

Grass and other vegetation are available year-round.

You may see Geese on lawns or golf courses.



Flyway - A Highway for Birds

A flyway is a flight path used by large numbers of birds while migrating. It's like a "highway" in the sky especially for birds. Birds use flyways all over the world. They can cross continents and pass over oceans.

There are 4 flyways in North America: the Atlantic, the Mississippi, the Central and the Pacific.

The Atlantic flyway comes through North Carolina.



Do you think

the white-throated sparrows and Canada geese use the Atlantic Flyway? Why?

MIGRATORY BIRD

Ruby-throated Hummingbirds

When the flowers are done for the season, so are the hummingbirds!

They move south and spend the winter in the tropics where they can find food.

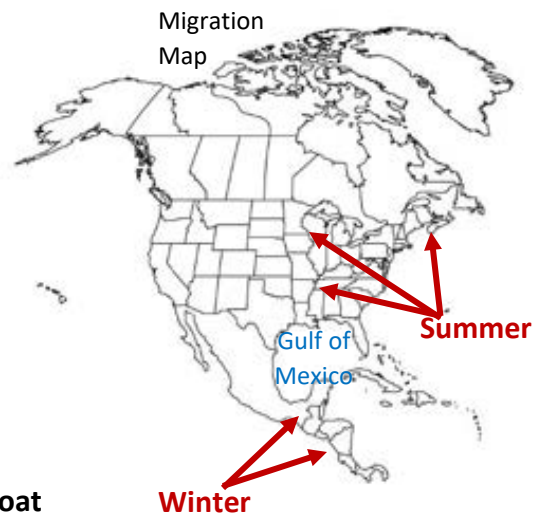
Just before they leave, they fill up on nectar so they have enough fuel to fly all the way across the Gulf of Mexico without stopping.



Female



Only the male has a red throat



Protect Migratory Birds

Migratory birds help keep nature healthy. They pollinate plants, scatter seeds and prey on pests that harm crops.

- ✓ Keep pets indoors
- ✓ Mark windows with tape or stickers to prevent bird strikes
- ✓ Turn off any unneeded lights at night

MIGRATORY INSECT

Monarch Butterflies

Insects migrate, too!

Bright-orange monarch butterflies pass through our area in the fall while migrating south.

Monarchs born in the summer live only 2-6 weeks.

The monarchs born in August can live up to 9 months. These are the butterflies that can travel over 3000 miles to get to the mountains in Central Mexico.

But these monarchs do not make it all the way back to their summer homes! As they are migrating, new monarchs are born and take over the journey.

There may be as many as 4 different generations that take part in the migration.



Monarch on Milkweed Seed Ball

Milkweed is the only thing Monarch caterpillars can eat.

Adults like the nectar in Milkweed but also eat nectar from other flowers.

Migrating Monarch Butterflies



How do animals migrate?

Do they walk? Do they run? Do they fly? Do they swim? Do they move in other ways?

- ✓ Pretend you are a migrating animal. Look at some of the migrating animals in this guide if you're not sure what animals migrate.
- ✓ Move around the way that animal would migrate.

Not all animals migrate!

Some animals are **permanent residents** and do not migrate. They stay in one area all year. Cardinals, Carolina Chickadees and Downy Woodpeckers are **permanent residents** in North Carolina so you can see them year-round.



Male on Left Female on right

Cardinal

Cardinals are songbirds. Unlike some other brightly colored birds, male Cardinals stay bright red all year. Cardinals defend their area and will "fight" with the bird they see reflected in the window.



Female



Carolina Chickadee

Chickadees are small songbirds that often flock with other small birds. They can be very vocal when preparing to eat.



Male

Downy Woodpecker

In the winter, the Downy Woodpecker joins flocks of other birds so they can spend less time being alert for predators.

Think About

Are you migratory or non-migratory?

Explain why you decided that.



THINGS TO TRY



- ✓ Keep your eyes and ears peeled for migratory birds! You can see them at any time of day, or even at night. You may hear them even if you don't see them.



- ✓ Keep a Nature Journal and record or draw the animals you see in it.

- ✓ Research to find birds that spend at least part of their time in our area. Use the information to make your own Field Guide and Checklist. Then look for those birds when you're outside.

- ✓ Plant a garden with flowers that bloom in the fall to attract migrating monarchs and hummingbirds.

- ✓ Visit a garden or other place plants are growing near you and see if you observe any migratory birds.



- ✓ Put up a bird-feeder and observe who visits.

- ✓ Report your sightings to online community science projects like iNaturalist, eBird, or Journey North.

Make Connections

- ✓ Where are you most comfortable in the summer? How about in the winter?
- ✓ What makes those places comfortable? Do they have special things that are nice when it's warm or cold outside? Are there special activities you can do there?

Make a Migratory Map

- ✓ Choose an animal that migrates.
 - Research its migratory patterns.
 - Draw its migratory routes on a map.

