

# Hibernation & Migration

EQ: What are behavioral adaptations?

Why do some animals migrate and others hibernate for the winter months?

**S4L2** Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation), and external features (camouflage and protection).

# Vocabulary

- ⑩ Instinct: a behavior that an animal begins life with and that helps it meet its needs.
- ⑩ Hibernation: a dormant, inactive state in which normal body activities slow.
- ⑩ Migration: the movement of animals from one region to another and back.

# Instincts

- ⑩ Animals are born knowing how to do a lot of things.
- ⑩ Spiders know how to spin webs and birds know how to build nests.
- ⑩ There is no thinking involved, they just know!
- ⑩ These instincts help animals meet their needs.



# Hibernation



- ⑩ It is a dormant, inactive state in which normal body activities slow.
- ⑩ To get ready they eat more, and find or build shelter to hibernate in.
- ⑩ During this time their heart beat slows down, and it's breathing almost stops.
- ⑩ They need little energy to stay alive and can live off fat stored in its body.

**Can you think of any  
animals that hibernate?**

Bear

Hedgehog

Snake

Ladybird

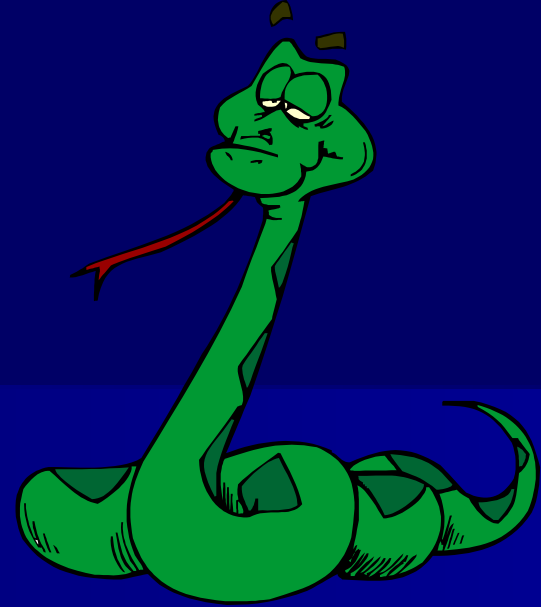


# Black Bear

- The black bear can go for as long as 100 days without eating, drinking, urinating, or exercising.
- They get ready by gorging rich berries and other foods to put on weight.
- They make dens in burrows, caves, hollowed-out trees, and rock crevices.



# Snakes



- ⑩ Snakes cannot control their body heat so they hibernate through the cold months.
- ⑩ Hibernate from October to April
- ⑩ They will often go underground , in deserted rabbit or rodent burrows
- ⑩ As the days get longer and warmer snakes begin to wake up

# Hedgehogs

- ⑩ Hedgehogs hibernate for 5 or 6 months.
- ⑩ They use old rabbit burrows, and fill them with leaves, and grass.
- ⑩ More hedgehogs die during hibernation, because they can't protect themselves from rain, flooding, the cold or lack of energy if their fat reserves run out





# Ladybugs



- ⑩ You will find ladybugs under leaf litter, among dead grasses and under stones.
- ⑩ Ladybugs will hibernate inside your house, in groups up to 1000 individuals.
- ⑩ They hide in cracks round window frames, inside lofts and under loose stonework and between roof tiles

# Light Sleepers

- ⑩ Some animals do not truly hibernate.
- ⑩ They are easily awakened during their winter slumbers
- ⑩ These animals breathe a little more slowly and lower their body temperature a few degrees
- ⑩ They wake up to forage between winter snows
- ⑩ Examples: Bears, skunks, raccoons

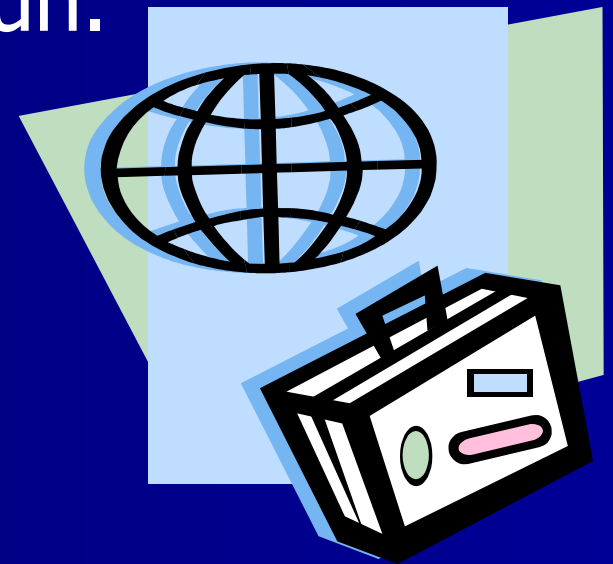
# Migration



- ⑩ It is the movement of animals in a group from one place to another and back.
- ⑩ Animals migrate for different reasons: some to look for more food, or a better climate.
- ⑩ Animals have specific times during the year that they migrate.

# How do animals know where to go?

- ⑩ Animals use their senses to determine direction.
- ⑩ Some make mental maps using scent, sight, and/or hearing.
- ⑩ Others use the stars or sun.
- ⑩ There is evidence that
- ⑩ migratory routes are
- ⑩ genetically passed from
- ⑩ parent to child.



**Can you think of any animals that migrate?**

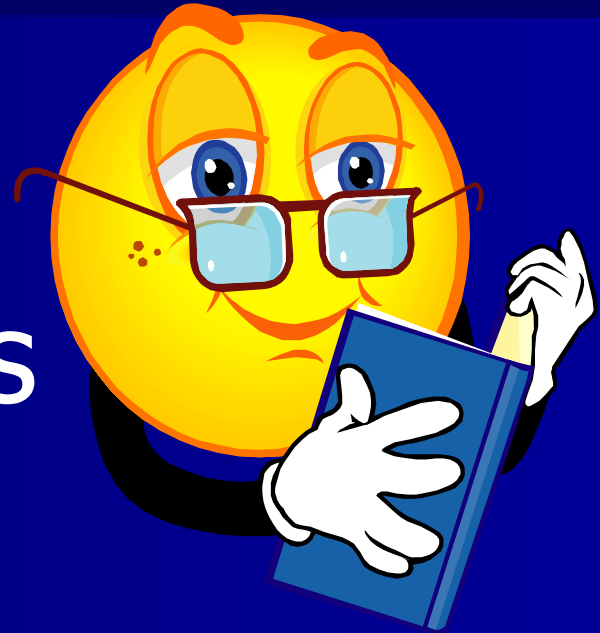
Gray Whales

Sea Turtles

Caribou

Golden Eagles

Sandpipers



# Humpback Whales

- ⑩ These whales head south in the fall to give birth to their young in subtropical waters off Hawaii, and then in late spring head north to spend the summer in the cold waters off Alaska that are rich with food.



# Sea Turtles

- ⑩ *Sea turtles* return from ocean waters to the coast to lay eggs in the sand, where they hatch and head to the open ocean until it is their turn to lay eggs.



# Caribou

- ⑩ Caribou migrate in herds.
- ⑩ They spend the winter in northern Canada.
- ⑩ In early spring, they move north.





# Golden Eagles

- ⑩ The Golden eagles spend the summer in the north where there is plenty of food, and head south for the winter when there is less food and the temperatures drop far below zero.
- ⑩ Golden eagles are considered partial migrants because those that live far enough south do not migrate.



# Sandpipers

- ⑩ They spend summers in eastern Canada.
- ⑩ In winter, they fly nonstop over the Atlantic to South America.



# Review

- ⑩ What is an instinct?
- ⑩ Explain what hibernation means and how animals get ready for winter.
- ⑩ What is migration and why do animals migrate?
- ⑩ Identify some animals that hibernate and some that migrate.
- ⑩ What are some dangers of hibernation and migration?