



Animals and Plants in Winter Free Online Resource

Overview: In this lesson and its accompanying activities students will learn about the different kinds of adaptations animals and plants have that help them survive winter. Students also will learn how to examine nature for clues as to which kinds of animals are active in winter.

Essential Questions:

- How do animals prepare for and survive winter?
- Do plants do anything to prepare for winter?
- How do we know which animals are active during winter?

Enduring Understandings:

- Animals and plants have different ways of preparing for and surviving winter that are based on different behavioral and physical adaptations.
- We can find clues in nature that tell us which animals are moving about in a place during winter.
- We can also find clues in nature to tell us what has happened in the lives of animals

Objectives:

Students will ...

- Learn about the physical and behavioral adaptations that animals have to help them prepare for and survive winter.
- Examine their schoolyards or neighborhoods and identify clues as to what animals are active there.
- Understand the difference between a behavioral and a physical adaptation

Vocabulary:

- **Adaptation:** Something an animal has or does that helps it survive in its habitat.
- **Physical adaptation:** Something an animal's body HAS that helps it survive in its habitat.
- **Behavioral adaptation:** Something an animal DOES that helps it survive in its habitat.
- **Autograph:** Something an animal leaves behind that lets you know it was there. It can be something you see, but also something you hear or smell.

- **Hibernate:** The process in which an animal sleeps through all or most of the winter, without consuming food or water, and without creating waste (poop).
- **Insulate:** Refers to an animal having layers of fur or feathers on its body that help keep it warm in winter.

Generate: The process of moving about and eating food in winter that helps keep an animal's body warm. Animals that generate in winter do not hibernate. They are active.

Congregate: The act of animals huddling up together to use each other's body heat to stay warm. Some animals that congregate also hibernate, but some don't.

Migrate: The act of moving from one place to another in search of food during the winter. Some migrations are relatively short, as with mule deer that migrate from mountains in summer to the valley floors in winter because there is less snow covering the plants that they eat. Other animals, such as many bird species, migrate long distances to find the insects and other foods that they eat and that are not available in cold climates in winter.

Propagate: Insects and plants do this. It is the act of leaving behind eggs (insects) or seeds (plants) in the fall, which will hatch or grow the following spring. Insects that propagate will die during winter, but their young will hatch when the weather warms.

Materials:

- A means to watch the online video for Activities 1 & 2
- The "-Ate Words Worksheet" or a piece of blank paper and a pencil
- The Winter Adaptations matching game sheet and a pencil
- The Animal Autographs card game printed and cut out

Activity 1: Video -- Animals and Plants Prepare for Winter

What you need: A way to watch the video, a piece of paper or copy of the "-Ate Words Worksheet," and a pencil

What you do: Watch the video, and fill out the worksheet or take a few notes as you go. Draw a picture or jot down a few notes next to each of the words we mention that end with "ate," to help you with a word-matching activity we do later. Also take note of the kinds of signs or "autographs" animals leave behind.

Activity 2: Winter Adaptations Matching Game

What you need: The Winter Adaptations Matching Game sheet and a pencil

What you do:

- Starting with the words listed on the left, draw a line from each word to the picture of that activity in the middle column.
- Then, draw a line from each picture to an animal in the far right column that would do that thing in winter.

Activity 3: Animal Autographs card game

What you need: The Animal Autographs card game, printed and cut out.

What you do:

- Print and cut out the animal cards. Cardstock makes them easier to shuffle, but you can do this with regular printer paper if you are just careful when you mix them up.
- Each deck has six animal cards. Place those in a horizontal row across your desk or table. Leave space to put cards below them.
- Now shuffle the Animal Autographs picture cards, and place them face down on the table or desk.
- Draw a card from the top of the pile and place that “autograph” or sign of an animal under the animal that might leave it behind.
- When you are all done going through the deck, check your choices against the “Autograph Cheat Sheet” to see how close you came!