WASATCH COMMUNITY GARDENS

Garden Activity:
Hibernation Winter Wonderlands

AGE GROUP: 3RD - 6TH GRADE **LENGTH: 40 min**

INTRODUCTION

Hibernation is a fascinating process where animals enter a state of inactivity and reduced metabolism to survive harsh winter conditions. During hibernation, their body temperature drops, heart rate slows down, and breathing becomes shallow. This adaptation allows them to conserve energy and survive without food or water for extended periods.

Let's dive into the world of hibernation and bring our winter scenes to life!

LEARNING OBJECTIVE

- Students will create a diorama showcasing a hibernating animal and its environment.

MATERIALS

- Shoebox or cardboard box
- Construction paper
- Paint
- Markers
- Glue
- Scissors
- Cotton balls
- Twigs
- Leaves
- Nature Magazines
- Cut-outs of hibernating animals (or small figurines if available)

PROCEDURE

1. Activity Introduction
   - Ask students if they know what hibernation is and why animals hibernate.
   - Share some key facts about hibernation.

2. Divide students into groups of 3-5 (depending class size)
   - Assign each group a specific hibernating animal
   - Provide students with information cards (cards can be adapted to grade/reading level)

PROCEDURE CONTINUED

3. Group brainstorm! Ask students to consider what hibernation environment is best suited for their their animal.

4. Guide students through the diorama construction process:
   - Decorate the inside of the box to create the background scene.
   - Cut and glue construction paper to create the floor and walls.
   - Add details like trees, rocks, and snow using cotton balls, twigs, and paint.
   - Place animals in their environment

5. Have each group present their diorama to the class, encouraging them to share the name of their hibernating animal, key facts about the animal's hibernation habits, and their reasoning for their creative design choices.

Information Cards

Bats

These nocturnal creatures enter a state of torpor (physical & mental inactivity), significantly reducing their body temperature and heart rate.

- Habitat: Bats are highly adaptable creatures and can be found in various habitats including caves, mines, hollow trees, and even buildings. They prefer dark, quiet, and undisturbed places for roosting and hibernating.
- Diet: Most bats are insectivores, feeding on a variety of insects like moths, mosquitoes, beetles, and flies.
- Hibernation: Bats often choose cool, damp caves as their hibernation sites. The stable temperature and high humidity of these environments are ideal for their survival during the winter.

Ground Squirrels

These rodents hibernate in underground burrows, their body temperature drops close to freezing.

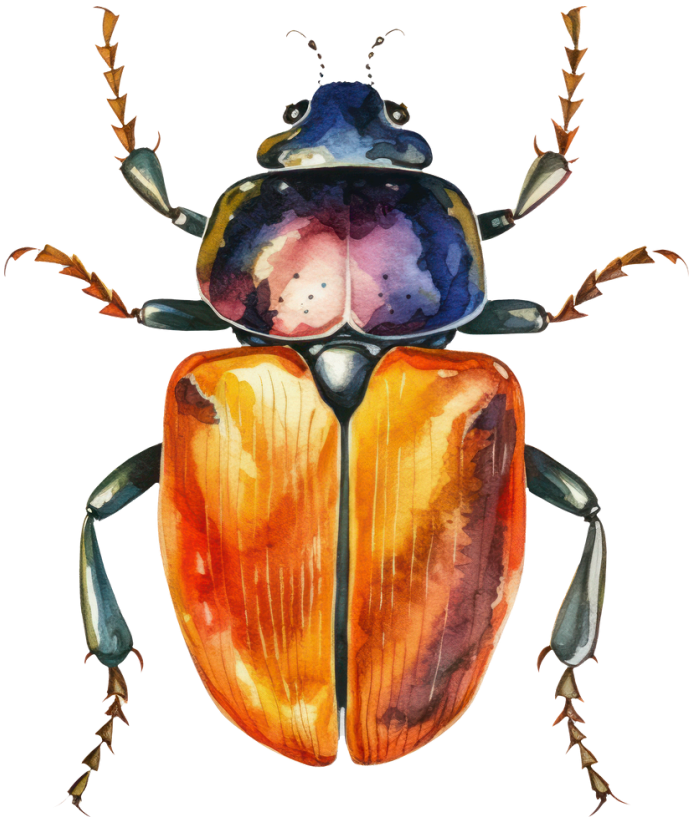
- Habitat: Ground squirrels are typically found in grasslands, prairies, and forests. They create burrows in the ground.
- Diet: Ground squirrels are herbivores, they feed on seeds, nuts, fruits, and vegetation. Their underground burrows serve as food storage.
- Hibernation: During winter, they enter a state of deep sleep. Their body temperature drops, and their heart rate and breathing slow down to conserve energy. Ground squirrels can survive without food or water for extended periods.

Information Cards

Beetles

Beetles are winter's silent survivors. During hibernation they enter a state of diapause (It's like a long nap where they slow down all their body processes).

- Habitat: Beetles are incredibly diverse and can be found in a wide range of habitats, including forests, fields, deserts, and even aquatic environments. They often live in soil, under bark, or in decaying wood.
- Diet: Some are herbivores, feeding on plants, others are carnivores, preying on insects. Many feed on decaying organic matter.
- Hibernation: Beetles seek out sheltered locations, such as under logs, in leaves, or within the soil.



Snakes

Reptiles seek out sheltered locations, such as rock crevices or burrows, and enter a state of brumation, a form of hibernation.

- Habitat: Snakes can be found in forests, grasslands, deserts, and wetlands. Their habitat depends on the species and their unique adaptations.
- Diet: Snakes are carnivores. They feed on small animals such as rodents, birds, lizards, and insects.
- Hibernation: Snakes seek out sheltered locations, such as burrows, rock crevices, or underground dens, to protect themselves from the cold. The stable temperature and humidity of these locations help them survive the winter months.

Information Cards

Ants

Ants don't hibernate like other animals, they adapt to colder temperatures.

- Habitat: Ants live in colonies underground or in mounds. They create complex tunnels and chambers to protect themselves from harsh weather.
- Diet: Ants are omnivores. They feed on a variety of foods, including insects, plant nectar, and fungi. They store food within their colonies to survive during winter.
- Winter Behavior: As it gets colder, ants become less active and move deeper into their nests. They cluster together to generate heat and conserve energy

Bumblebees

Unlike honeybees, only the queen bumblebee hibernates.

- Habitat: Bumblebees live in colonies. They nest underground or in small places like birdhouses or rodent burrows.
- Diet: Bumblebees are important pollinators. They feedi on nectar and pollen from flowers.
- Hibernation: In the late autumn, the bumblebee finds a sheltered spot, such as under leaf litter or in the soil. Her body temperature drops, and her metabolism slows down, allowing her to survive the winter. In the spring, she emerges to start a new colony.