

Virtual Ranger Program: Winter Adaptations

National Park Service
U.S. Department of the Interior

Shenandoah National Park



Summary	Students will use this worksheet to follow along with the virtual ranger program about winter adaptations. This will guide students in various learning methods to understand adaptations of animals and how they survive winter months on the mountain.
Suggested Grade Levels	3-7
Objectives	<ul style="list-style-type: none">• Understanding how animals use various methods to survive winter.• Apply adaptations to the specific animals and plants that use them.• Investigate the mountainous habitats of Shenandoah National Park and how they change in the winter months.
Virginia State Standards	<p><i>Strand: Living Systems and Processes</i></p> <p>3.4 The student will investigate and understand that adaptations allow organisms to satisfy life needs and respond to the environment. Key ideas include a) populations may adapt over time; b) adaptations may be behavioral or physical.</p> <p>3.5 The student will investigate and understand that aquatic and terrestrial ecosystems support a diversity of organisms. Key ideas include b) relationships exist among organisms in an ecosystem.</p> <p>4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include a) the survival of plants and animals depends on photosynthesis; b) plants and animals have different structures and processes for obtaining energy; and c) plants and animals have different structures and processes for creating offspring.</p> <p>4.3 The student will investigate and understand that organisms, including humans, interact with one another and with the nonliving components in the ecosystem. Key ideas include a) interrelationships exist in populations, communities, and ecosystems; b) food webs show the flow of energy within an ecosystem; c) changes in an organism's niche and habitat may occur at various stages in its life cycle.</p> <p><i>Strand: Earth and Space Systems</i></p> <p>4.4 The student will investigate and understand that weather conditions and phenomena affect ecosystems and can be predicted. Key ideas include b) common and extreme weather events affect ecosystems; and c) long term seasonal weather trends determine the climate of a region.</p> <p><i>Strand: Earth Resources</i></p> <p>3.8 The student will investigate and understand that natural events and humans influence ecosystems. Key ideas include a) human activity affects the quality of air, water, and habitats.</p> <p>4.8 The student will investigate and understand that Virginia has important natural resources. Key resources include b) plants and animals; c) minerals, rocks, and ores; and d) forests, soil, and land.</p>

Vocabulary

Adaptation – a special trait or characteristic that helps an organism survive

Brumation – a low-energy state in reptiles that is similar to hibernation but has different bodily changes

Migration – seasonal movement of animals from one geographic area to another

Mimic – the act of resembling another animal, plant, or inanimate object

Torpor – a low-energy state in some animals that occurs seasonally; similar to hibernation but has different bodily changes

Materials

YouTube video: Shenandoah NPS / Virtual Ranger Program: *What Animals do to Survive in Shenandoah's Winter Wonderland*

Link: [What Animals do to Survive in Shenandoah's Winter Wonderland](#)

Duration: approximately 14 minutes

Shenandoah National Park
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Student Worksheet

Student Name:

Date:

Name an animal that sleeps for the winter:

Name an animal that migrates south for the winter:

Name an animal that stays active outside for the winter:

Match the animal or plant to a winter adaptation it may use:

American Black Bear

Brumation

Timber Rattlesnake

Long legs

Monarch Butterfly

Torpor

White-tailed Deer

Migration

Bobcat

Grow more fur

Adaptation Station

Pick an animal that you learned about. Give it a different adaptation to survive in the Shenandoah mountains throughout the winter. Label the adaptation(s). Consider: Where would it live? What does it need? Draw your new animal in its winter habitat below:

What do you think of when you think of winter? What do you like to do in winter?

How do you prepare for winter?

If you could have only one winter adaptation that you learned about in this video, what would it be and why?

Can you think of an animal in your local area that changes to adapt in winter? How?

What did you learn that surprised you and why?

Creation Station

Create an acrostic poem using the word **ADAPTATION**! To create an acrostic poem, break down the letters of a word and use each letter to start a word about the topic chosen.

A -

D -

A -

P -

T -

A -

T -

I -

O -

N -

What are two (2) questions you still have about winter adaptations?

1.

2.

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Teacher Answer Guide

Student Name:

Date:

Name an animal that sleeps for the winter:

Example: Groundhog

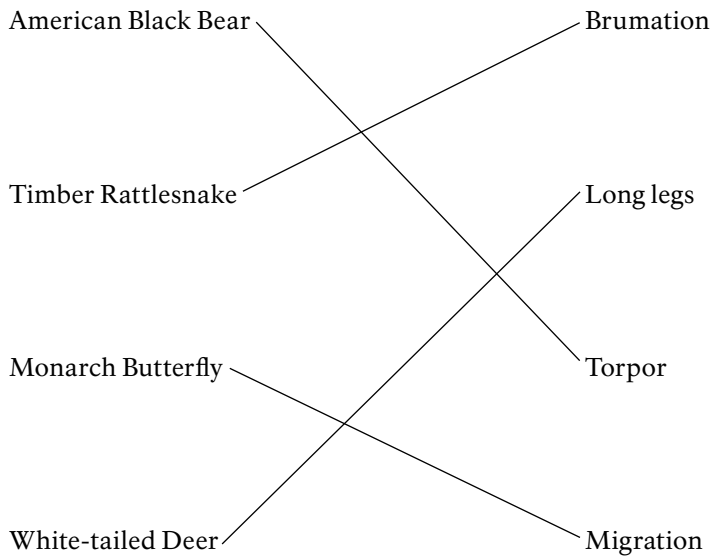
Name an animal that migrates south for the winter:

Example: Scarlet Tanager

Name an animal that stays active outside for the winter:

Example: Coyote

Match the animal or plant to a winter adaptation it may use:



Bobcat ————— Grow more fur

Adaptation Station

Pick an animal that you learned about. Give it a different adaptation to survive in the Shenandoah mountains throughout the winter. Label the adaptation(s). Consider: Where would it live? What does it need? Draw your new animal in its winter habitat below:

What do you think of when you think of winter? What do you like to do in winter?

How do you prepare for winter?

Example: Put on a coat, gloves, hat

If you could have only one winter adaptation that you learned about in this video, what would it be and why?

Example: Growing extra fur to keep warm in the winter

Can you think of an animal in your local area that changes to adapt in winter? How?

Example: A deer will grow extra fur and drop their antlers in the winter

What did you learn that surprised you and why?

Creation Station

Create an acrostic poem using the word **adapt**! To create an acrostic poem, break down the letters of a word and use each letter to start a word about the topic chosen.

A -

D -

A -

P -

T -

A -

T -

I -

O -

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What are two (2) questions you still have about winter adaptations?

1.

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