



WildTIMES for kids!

Winter Wildlife

How do people get ready for winter weather and cold temperatures? We wear sweaters, snow pants, and mittens. We turn on the heat or use the fireplace in our homes. We enjoy eating warm meals and drinking hot chocolate.

Animals prepare for the winter in a number of different ways. Some birds and insects migrate south from New Hampshire to a warmer place with more opportunities to find food. Other animals stay in New Hampshire and adapt to the cold winter weather. Turn the page to find out more about these winter adaptations.

SURVIV

Many mammals and birds remain active throughout the winter months. To adapt to the cold and snow, some grow more fur or feathers. Some birds fluff up their feathers to reduce heat loss. The fluffing makes spaces between the feathers to trap warm air, which insulates the bird's body from the cold. Some birds huddle together, or tuck their bills under their shoulder feathers to save heat while they are sleeping.

A black-capped chickadee fluffs its feathers during cold weather to trap warm air and reduce heat loss.

When winter arrives, the snowshoe hare changes its coat of fur to white to make it hard for predators to see. It also has very large hind feet that help it run on top of snow.



ING WINTER

Many mammals in New Hampshire, like the red fox, grow a thicker coat of fur during winter to keep them warm.



When ducks are out and about during winter, you will often see them huddled together with their bills tucked under their feathers to help them stay warm.



HIBERNATION

SLEEP OR SLUMBER?

In New Hampshire, we only have three true hibernators. Woodchucks, jumping mice, and bats (right) go into this deep sleep for four to six months. A hibernating animal's heart rate slows down, its breathing rate decreases, and its body temperature drops. This helps the animal save energy and allows it to eat less or not at all. Instead, it lives on fat in its body. Hibernating animals store a special brown fat around their backs and shoulders, with more near the brain, lungs, and heart. As they use up the stored fat, these organs wake the animal up when it's time to come out of hibernation.



EASTERN CHIPMUNK

Some mammals, such as chipmunks (left), raccoons, skunks, and black bears, become inactive (dormant) and sleep for part of the winter. Their body temperature goes down and their breathing slows, but not as much as true hibernators. If the weather warms up, they may wake up and grab a snack from their stored food, or even venture out of their den, and then go back to sleep.

ON



LITTLE BROWN BATS

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WOOD FROG



© ROYAL ONTARIO MUSEUM

Insects and some amphibians, such as the wood frog (left), build up glucose (sugar) in their blood, which acts like an antifreeze, protecting their cells from damage when the water in their bodies freezes. Other cold-blooded animals seem almost dead during the winter months, but they will wake up when spring arrives.

LIFE BELOW THE SNOW

Snow acts like a blanket trapping the heat that radiates from the surface of the earth. This insulates the ground from cold surface air. Under 6 inches of snow, the temperature remains at a nearly constant 32°F. In this subnivean zone, it is usually warmer than the temperature above the snow. Small mammals such as shrews, moles, voles, and mice are protected here from the wind and blowing snow. These mammals dig tunnels in search of seeds, nuts, grasses, and insects.

BUSY UNDERGROUND

Moles do not hibernate during the winter months. They stay active, digging tunnels below the surface looking for food.

Moles may dig tunnels into the snow and later fill them in with soil as the ground thaws in early spring.

During winter, worms and grubs coil up in burrows and provide food for moles.

Permanent tunnels are used by moles to move between feeding areas.

A mole's nest can be more than 12 inches below the surface and is lined with grass and leaves.



WALKING ON SNOW



The ruffed grouse is a forest-dwelling bird that lives in New Hampshire. They grow fringes on their toes to make their feet larger. Larger feet then act like snowshoes and help spread their body weight so that when they walk on snow they won't sink.



GIVE IT A TRY!



What happens when you change the shape of your feet and walk in the snow? Test how much you sink into the snow with different shoes on your feet.

First walk in the snow with snow boots. Just like white-tailed deer hooves, your boots probably make holes in the snow. Measure with a ruler how far you sink into the snow.

Now put on some snowshoes. If you don't have snowshoes try making some out of a stiff cardboard box. Measure with a ruler how far you sink into the snow this time.

With larger and longer feet, can you stay on top of the snow like snowshoe hare and ruffed grouse?

By spreading out your weight over a larger surface area, you can travel more easily on top of the snow.

WINTERWAL

WORD SEARCH



How many words from the list on the right can you find in the set of letters below? These words may be written horizontally, vertically, diagonally, or even backwards. Start at the top of the list—the further down the list you go the more challenging it is to find the word!

E U R S H R E W U F J F M L R
 F E D Y W D T H M E G J L T D
 I E E L I E U W I A U K A L E
 L D C B N Z N N N T B E O W R
 D A C B T E N O S H H C V K U
 L K J I E E E I U E U X P U T
 I C D U R R L T L R G C F G A
 W I W E A F S A A S H O I C R
 E H I S X S V N T O **F O X** A E
 A C N U E I P R E P A R E K P
 T P D O V N A E V I N B U S M
 H M G R R F X B E V P Z V T E
 E N U G U K M I S N O W D A T
 R S M R H B Y H I M O L E B O
 M Y Q M S N O I T A T P A D A

SHREW

~~FOX~~

SNOW

MOLE

PREPARE

WIND

WINTER

TUNNELS

INSULATE

FEATHERS

HEAT

COLD

SURVIVAL

WEATHER

FUR

BATS

GROUSE

WILDLIFE

FREEZE

CHICKADEE

TEMPERATURE

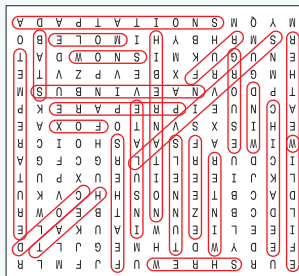
HIBERNATION

ADAPTATIONS

SUBNIVEAN

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