

The Mitten

Animal Unit Study

by Lit Mama Homeschool

There are 7 mammals and a bird who end up sharing Nicki's mitten in the snowy woods in Jan Brett's picture book *The Mitten*. Each of these creatures is fascinating and well worth getting to know a little better.



Moles are small mammals, usually about the size of a mouse—4 to 6 inches long. They have velvety grey fur and long, curved claws which they use to burrow underground. They create long tunnels under the surface of the earth. If you've ever gone out into your yard and seen a raised line of dirt and grass where there shouldn't be one, you have probably seen a mole hill. Many people think of moles as pests because all that digging can wreak havoc on a lawn or garden. Moles have very small eyes and a powerful sense of smell. Scientists believe that moles' eyes have become so small because they don't really use them in their underground lives. Moles are considered omnivores, but they are mostly insectivorous—meaning they eat mostly insects, earthworms, and grubs. The saliva of moles contains a toxin that paralyzes their prey, so they can save it for later. In fact, they are known to build underground larders in which they store food to eat when they get hungry. Moles live a solitary life of about 3-5 years, usually in woodlands, grasslands, or farmlands.



Rabbits can grow from 8 to 20 inches long. Their familiar ears can grow as long as four inches. They not only have an acute sense of hearing, but of smell and of sight. Rabbits have a 360° view of the world, meaning they can see behind them in order to watch for predators. Funnily enough, the only blind spot rabbits have is directly in front of their noses! Their hind legs are so powerful they can propel them more than 3 feet in the air in a jump over 9 feet long. That's really helpful when they're trying to escape a fox or a dog. Rabbits are herbivores, eating mostly grass, clover, and wildflowers. And vegetables from your garden. They live in loosely organized groups in warrens, or a series of underground tunnels and burrows. The males are called bucks, the females are called does, and the babies are called kits or kittens. They live for about 10 years in meadows, forests, grasslands, deserts, and wetlands. More than half the species of rabbit live in North America, but they can also be found in Southwestern Europe, Southeast Asia, Sumatra, Africa, South America, and parts of Japan.



Hedgehogs are named for their foraging habits. These adorable, spine-covered creatures root through hedges and undergrowth for their food—mainly insects, worms, and centipedes but also frogs, mice, and snakes. They grunt as they root around, much like a pig, so you can see how they came to be called a *hedge hog*. Hedgehogs are small creatures, growing only to about 5-11 inches long, but they are covered with nearly 5,000 spines to protect them from predators. Hedgehogs are nocturnal. That means they forage and eat at night and sleep all day—usually in nests under bushes or thick shrubs. Their eyes, while adapted for night vision, are weak, so they rely on their senses of hearing and smell to hunt for food. European hedgehogs, such as the one pictured above, hibernate through the winter. They are solitary animals that live up to 6 years in the wild.



There are many different types of owls—the great-horned owl, the barn owl, the barred owl, and the elf owl. The elf owl is the smallest of all at only 5-6 inches tall while the

Great Gray Owl (the largest in North America) can be as tall as 32 inches. Owls don't have true eyeballs, meaning their eyes don't move in their sockets. Rather, their eyes provide binocular vision and enhanced depth perception while their heads are able to swivel 270°. When you consider that you have to turn 180° to face behind you, that is a lot of movement for one neck. Owls are nocturnal, so they do their hunting at night. They eat mice and other small mammals, frogs, lizards, insects, and even other owls! Believe it or not, the main predator of the elf owl is the great-horned owl. They swallow smaller prey whole, and have to tear larger prey such as squirrels and rabbits into bits. Owls regurgitate (throw up) the indigestible bits such as bone, fur, and feathers. This regurgitated material is known as a pellet. There are over 200 species of owl. A group of owls hanging out together is called a parliament. They live in many different habitats including woodlands, farmlands, deserts, rainforests, and grasslands. With so many different species, it's hard to pinpoint a lifespan, but the great-horned owl can live up to 30 years.



Badgers have very thick skin and long claws with which they create a series of underground burrows called 'setts' to live in. They live in groups of about 6 family members per sett. The badgers keep their setts very clean. They don't bring food into it, and they even go outside to use the bathroom. They will also clean old nesting materials (hay, grass, and the like) from their setts regularly, in order to keep down lice and fleas. Because of the care taken of these marvelous homes, some setts are known to be centuries old. Badgers are nocturnal. They can each eat several hundred earthworms every night. They are also one of the few animals that can hunt hedgehogs. Their thick skin protects them from the spines. Besides worms and hedgehogs, badgers also eat rabbits, grubs, bluebell bulbs and elderberries. That means they are omnivorous—they eat both vegetation and meat, just like most humans. Their preferred habitat is grasslands, but they have also been found in woods, hedgerows, sea cliffs, and moorlands. A male is called a boar, a female is called a sow, and the babies are called cubs. They usually live for

about 10 years in the wild, which means many generations have lived in those centuries-old setts.



Foxes are small animals, usually a little larger than a full-grown cat. They are members of the dog family. A male fox is called a dog; a female is called a vixen. They are nocturnal, and their eyes are specially adapted for night vision. A special layer in their eyes reflects light back through the eye, doubling the intensity of the image seen by the fox. This is great when they are hunting mice, voles, shrews, squirrels, rabbits, skunks, and raccoons, but foxes will eat just about anything including berries, worms, and spiders. Cold, hard winters can drive foxes into towns or even lead to starvation if the fox is unable to find food. Foxes build underground dens also called 'earths.' Though usually solitary, the dog fox will bring food to the vixen and cubs when the cubs are very young, and sometimes a sister fox will help a vixen raise her cubs. Foxes use 28 different types of call to communicate including a frightening high-pitched scream used as a mating call. Foxes can be found in forests, mountains, grasslands, and deserts and they live up to 5 years in the wild.



Bears are much larger animals than the others who snuggle into the mitten. There are 8 species of bear—Asiatic bear, black bear, brown bear (including grizzlies), giant panda, sloth bear, polar bear, spectacled bear, and sun bear. Polar bears are the largest, standing at over 11 feet tall. The smallest is the sun bear, which stands at 3-5 feet. An interesting fact about bears is that the original name for them has been lost. Apparently medieval people thought that naming the animal would summon it, so they used a nickname that meant “brown one”—bear. Most bears hibernate in the winter. They eat as much as they can during autumn then settle into a den to sleep through the cold months. Their heartbeat and breathing slow down, and they don’t eat, drink, or go to the bathroom for the whole of their hibernation. Bears are omnivores. They eat meat such as deer, fish, elk, and caribou (or seals in the case of polar bears), and vegetation such as berries, sap, branches, and roots. Bears have great senses of smell, hearing, and sight. In fact, bears are one of the only other mammals who see in color. Bears can walk upright because they walk flat on their feet like people do, rather than up on their toes like other animals. Their habitats include forests, mountains, meadows, desert fringes, and ice fields. They can live 20-40 years in the wild, depending on the species.



Mice are small rodents with big ears and long tails. They come in lots of colors, such as white, brown, and grey. We think of them as tiny, but some types of mouse can grow to the size of a potato! Mice can live just about anywhere (even in your house—Eek!), but in the wild they have underground homes, with specific areas for sleeping, storing food, and using the bathroom. Mice have facial expressions that can be read by other mice. This tells the world what their mood is, and can actually affect their 'friends.' Some scientists believe that one mouse's mood can affect another's. They are intelligent, and have a complex system of communication which includes their voices, odors, and facial expressions. Mice are nocturnal. They are omnivorous, though in the wild they prefer fruit, seeds, and grains. They will eat just about anything they find in your house, and if they are starving they will even eat each other! (Eek! Again!). While they use their whiskers to understand their surroundings, they can also feel temperature with their whiskers. Can you imagine if your hair told you whether it was hot or cold? You might know mice are fast runners and good climbers, but did you also know they are excellent swimmers and can jump nearly 18 inches high? Mice live for 1 $\frac{1}{2}$ - 3 years. I just hope they never live in my house.

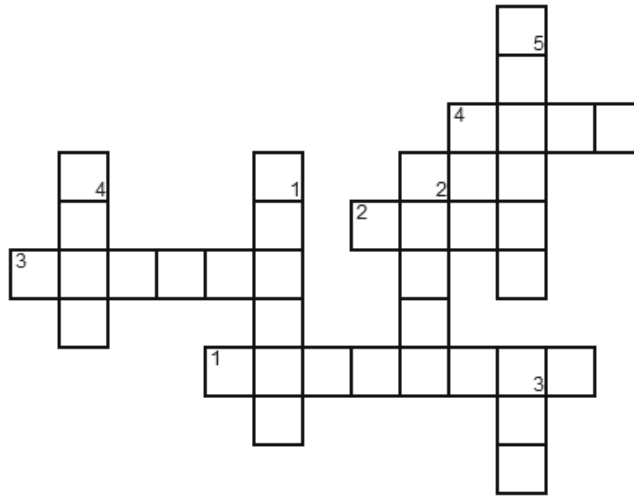
The Mitten Word Search

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

MITTEN
NICKI
MOUSE
BADGER
BEAR
FOX
HEDGEHOG
OWL
WINTER
SNOW
RABBIT
MOLE



The Mitten Crossword Puzzle



Across

1. Animal covered in spines
2. Animal who digs underground tunnels
3. Animal who can jump over 9 feet
4. Frozen rain that blankets the land

Down

1. a warm covering for your hand
2. Rodent whose whiskers sense cold
3. Animal whose eyes do not move
4. Animal who eats deer and berries
5. Time when you wear mittens

