

# What Is Adaptation?

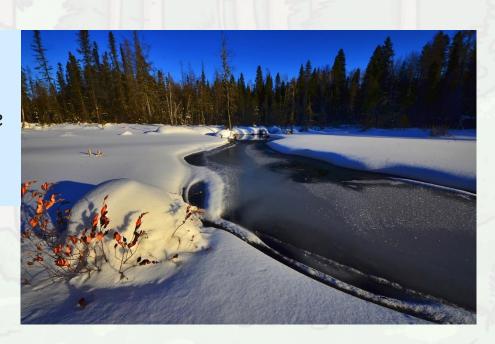


Adaptation is the process of change by which a species becomes better suited to its environment.

# Why Must Animals Adapt?

Animals adapt when their natural habitat changes.

In Canada, winters can bring extreme changes in weather. In order to survive through the cold winters, animal species must adapt.



### How Do Animals Adapt?

Each animal has certain features that helps it adapt to its environment. For example, the polar bear does not hibernate in winter like the grizzly bear does. Polar bears have features that help them adapt to the cold:

- They have thick fur coats.
- They have a layer of fat under their fur.
- They have hair on their paws that helps them avoid slipping on the ice.



## Adaptive Features

Can you think of other animals that have adaptive features?



Can you think of any?



Walrus



#### Arctic Hare

An Arctic hare has brown fur that turns white in the winter, so it is more difficult to find in the white snow.

Their hair grows longer and thicker in winter. They have strong claws to dig into the hard snow.



### Sloth



Sloths are adapted to survive in tropical rainforests. They have very sharp claws which helps them to climb trees.

Sloths spend most of their lives in tree tops to avoid the predators living on the floor of the rainforest. Green algae grows on sloths fur which help to camouflage sloths from their predators.

#### Whale

Whales are adapted to help them survive in the oceans. They are streamlined and can travel through water easily using their flippers.

Whales are warm-blooded mammals and have a thick layer of blubber under their skin to keep them warm. They have blow holes on top of their heads which let them breathe air in and out.



### Elephant



Elephants eat plants and are adapted to survive in savannahs, forests and deserts. Their cushioned feet help them to walk silently which helps them avoid predators.

Elephants have very large ears to cool them down. They also have a long trunk which they use for many things including showering, making trumpeting sounds and picking things up.

#### Meerkat



Meerkats live in groups. One or two meerkats will stand on their hind legs. They act as lookout for predators, whilst the other meerkats use their forefeet to help them find insects by digging the dirt.

eyes. This helps them to see predators more clearly in bright sunshine.

#### **Arctic Fox**

Arctic foxes are adapted to survive in cold places. They have white fur to help to camouflage them against the

Arctic foxes have many other adaptions to help them survive in the cold. They have small ears and noses to reduce heat loss. Their thick fur and thickly furred footpads help to keep them warm.



### Walrus



A walrus is adapted to live in very cold places. The bottom of a walrus' flippers are bumpy to help them grip onto the ice. A walrus' tusks help them climb out of the water.

They have a thick layer of fat to protect them from getting too cold.

## Porcupine

Porcupines are adapted to live in forests. They have sharp quills to help them if they are in trouble with another animal.

They are great tree climbers because they have thick pads under their paws.



# Snowy Owl

Snowy owls are well adapted predators. They have large eyes to help them see their prey and asymmetric ears help them to hear their prey. Their silent feathers help them to sneak up silently on their prey and catch it!



### Do Humans Adapt?

Humans have the ability to adapt to changes in their environment. Yes

Think about what happens when you go swimming or take a bath. Does your body adapt to the water in any way?

Your fingers become wrinkled! Your body does this in order to help your fingers grip onto things, even in the water!



