



# Amazing Adaptations!



The rainforest is a very complex environment and home to over half the world's plant and animal species, so it can be very crowded! Luckily there are lots of habitats within the rainforest, from the cooler, shaded forest floor, to the streams and rivers and the dense canopy.

All the animals and plants in the rainforest have adapted to suit their particular habitat, meaning they can all survive in the rainforest.

## So what is an adaptation?

Complete the passage by filling in the missing words from the list below:

- plants*                      *animals*      *behavioural*                      *predators*                      *food*
- jump*                      *change*                      *swim*                      *millions*                      *physical*                      *climb*
- survive*                      *habitat*                      *communicate*

An Adaptation is a ..... that takes place over ..... of years, which helps ..... and ..... to ..... in a particular .....

There are many different reasons for adaptations; they can help an animal to catch ....., or to disguise it from ..... they can also help it to ....., ..... or ..... through the environment or to ..... with other species. Adaptations can be ..... i.e. its colour, shape or size, or ..... i.e. the way it moves and acts.



## Life under the Canopy

The lowest levels of the rainforest is the coolest and darkest where less than 3% of light filters down through the dense canopy. Plants found here have adaptations to help them get as much light as possible, so they can still photosynthesize (make their food).

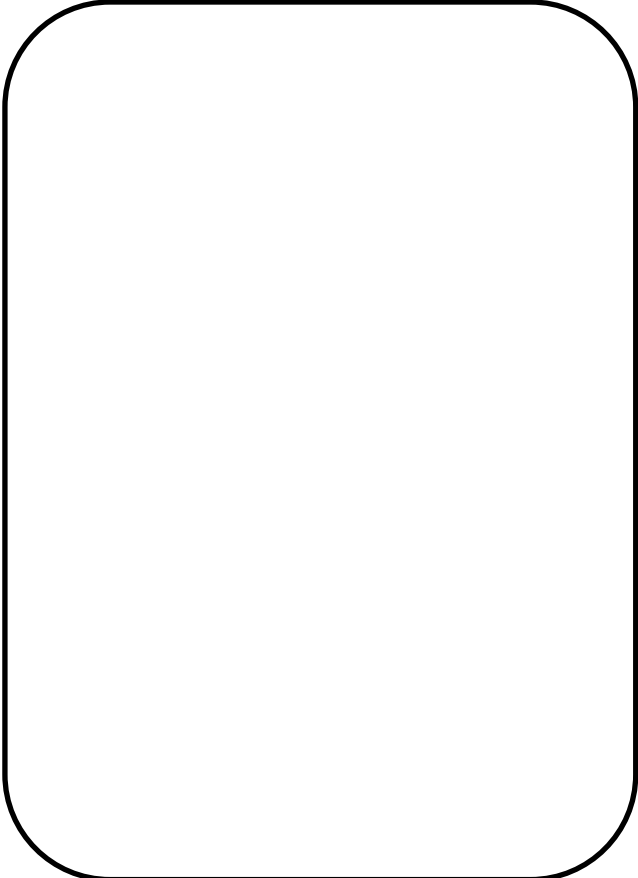
What special adaptation does the Giant Taro leaf have that helps it to capture sunlight?

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Nutrients such as nitrogen are also important to plants; can you draw a plant which has **adapted** an amazing method of catching **living creatures** to supply it with those nutrients?

How has this plant adapted to make sure that heavy rainfall doesn't stop it catching food?

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The Swiss Cheese plant has adapted big holes in its leaves, what are these for?.....

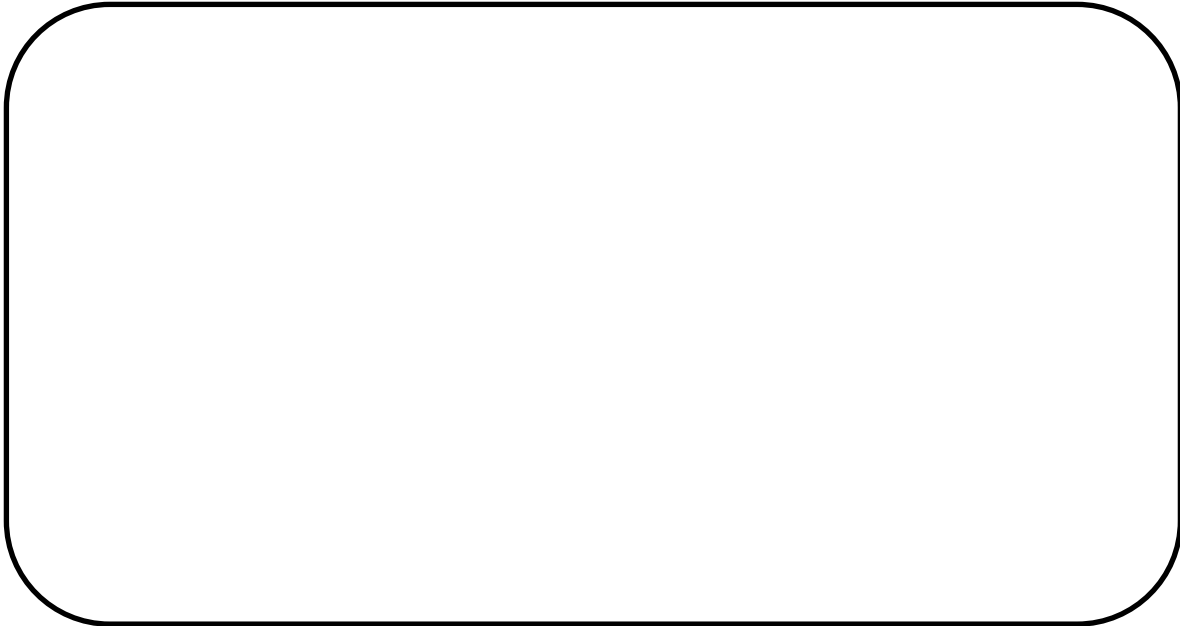
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In some parts of the rainforest there are so many plants and trees growing there isn't enough room to fit any more in the ground!

One clever group of plants known as **Epiphytes** have solved this problem.

Choose an Epiphyte and draw it below labelling how it is adapted to grow in the rainforest?



Many **invertebrates** live on the forest floor. These animals are often called nature's recyclers!

Can you explain the role that invertebrates have in the rainforest and say why they are so important?

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Some of these invertebrates, like the **Madagascan Hissing Cockroaches**, would make a potential meal for lots of rainforest predators.



How have the Cockroaches adapted to defend themselves?

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**Agoutis** are important seed dispersers in the forest and have a special relationship with the Brazil Nut Tree.

Explain what is so special about them - how have they adapted? What would happen to the Brazil nut tree without Agoutis?

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**Poison Dart Frogs** are normally found on the forest floor; however they have a special relationship with a type of Epiphyte called a Bromeliad.

What is the relationship and how might it benefit the Frogs and the Bromeliads?

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# Life in the Trees

The forest **canopy** is found at about 30-40 metres above ground level, and most of the animals and plants of the rainforest are found here.

Because of the large amount of foliage it can be quite challenging moving and communicating through the leaves and branches, so many animals have adaptations to make this easier.

How does the brightly coloured beak of a toucan help them survive in the rainforest?

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**Toucans** and **Turacos** spend most of their time running along or hopping through the branches. How are their feet adapted to help them with this?  
Can you draw and label them?



**Chameleons** are tree climbing experts and use their tail as a fifth limb for extra grip and support when climbing. What is a tail like this known as?

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**Camouflage** is an important method of defence for canopy creatures.

Can you **list 3 animals** that use camouflage as protection - disguising themselves from predators? Note what colour(s) they are?

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2. ....
3. ....

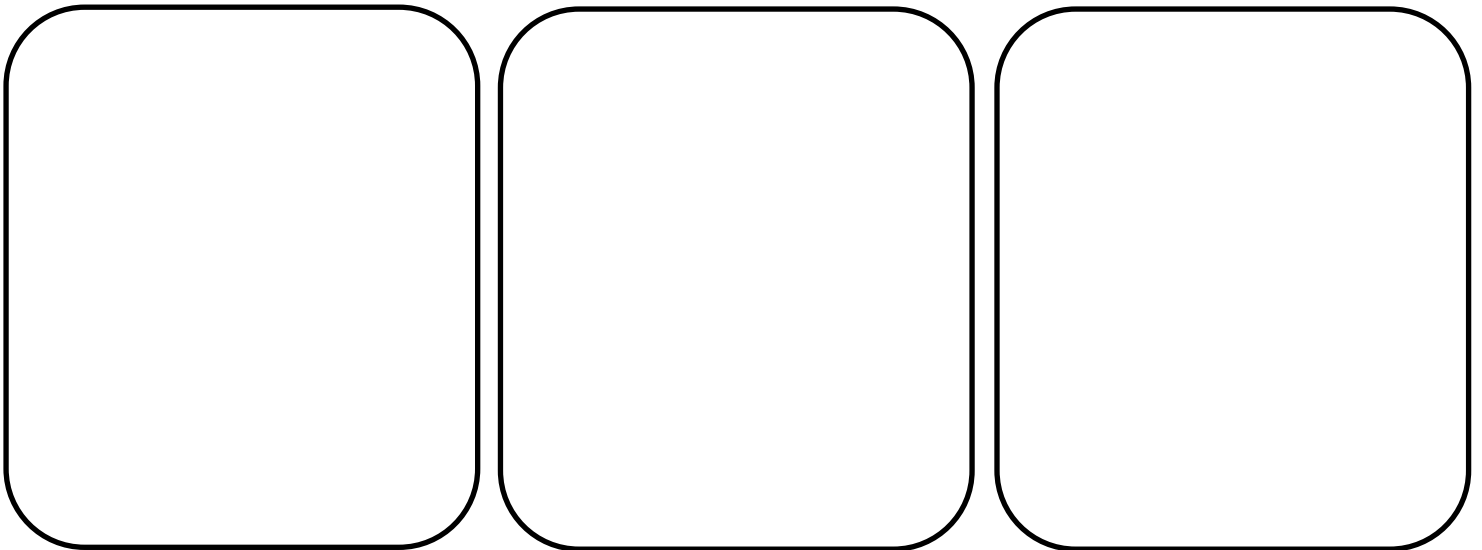
Trees in the canopy get plenty of **sunlight and water** - sometimes too much! Why would it be a bad thing for the leaves to be wet all the time?

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Can you draw 3 adaptations leaves have made to remove excess water from their surface? Name a plant(s) that use each type of adaptation?



- 1).....      2).....      3).....



Our family of **Goeldi's Monkeys** are another rainforest specialist! They are **Arboreal**, meaning they are specially adapted to live and move around in the trees.

Tick the adaptations below which you think are **true** and help them survive in the rainforest understorey and canopy.

- Sharp claws
- Forward facing eyes
- Loud vocalisations
- Dark colour
- Long tail
- All of the above



Select one of the above and explain how it would help them in the rainforest.

.....helps the Goeldi's Monkeys  
because.....  
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### Life in the River



● Due to the huge amount of rainfall they receive, (a minimum of 2m per year) tropical rainforests have some of the largest rivers in the world, like the **Amazon, Mekong, Orinoco, and Congo**. These rivers are fed by smaller tributaries, streams, and creeks which provide lots of watery habitats.



**Stingrays** are fish that live and feed on the riverbed. Their shape, colour and patterns (on top and underneath) are adaptations that help them survive.

Explain how their shape and colours help them to live their lives as bottom dwellers?

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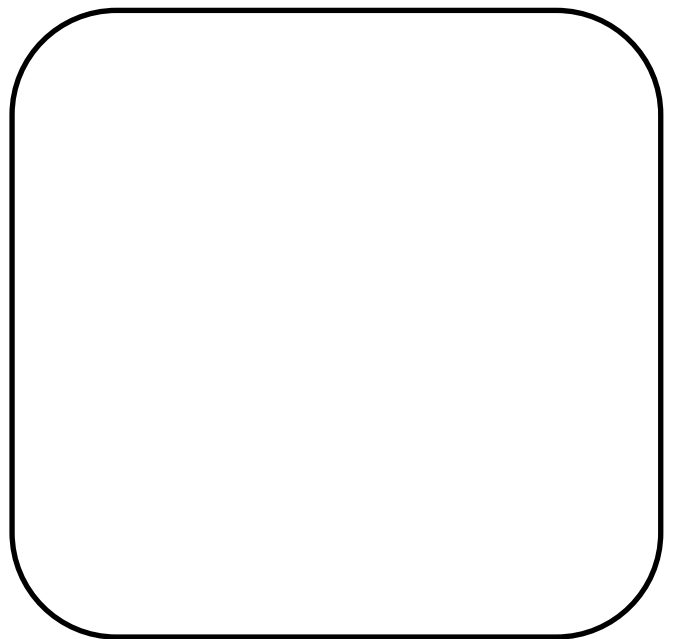
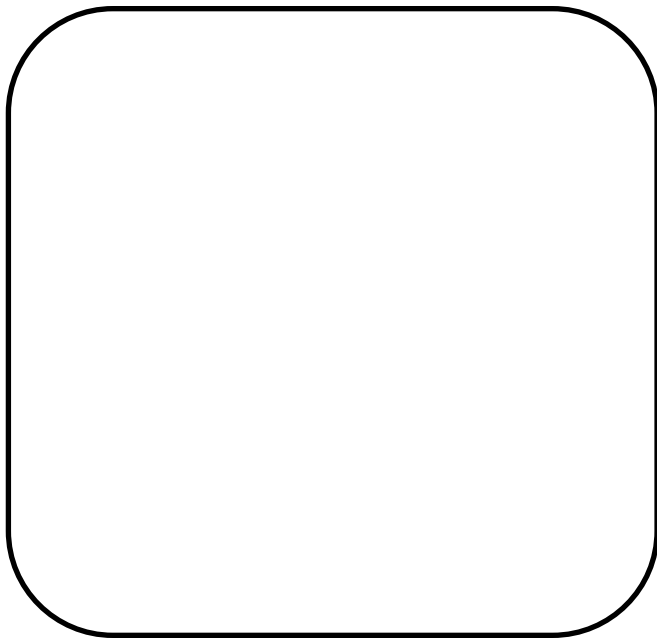
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**Turtles** and **Tortoises** are very closely related, but Turtles live in water and Tortoises live on land. **Sketch** a turtle and a tortoise below.

Turtle

Tortoise



Can you explain how their adaptations are different and so allow them to live in their habitat (land or water)?

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