Teaching Resources
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The orangutan is the largest arboreal animal in the world. Arboreal means tree-living and the word ‘orangutan’ means ‘person of the forest’. In the Malay language, ‘orang’ means ‘person’ and ‘hutan’ means ‘forest’.

A habitat is a place that provides everything animals need for survival - food, shelter and the right temperature. An orangutan’s habitat is the tropical rainforest.

Orangutans are a species of great ape along with gorillas, chimpanzees and bonobos. Great apes are a group of mammals that have large brains, forward facing eyes and gripping hands. Humans are also great apes. In fact, we share 96.4% of our genetic makeup with orangutans! Apes and monkeys are both primates. The easiest way to distinguish between monkeys and apes is to look for a tail. Apes don’t have tails whereas most monkeys do (some monkeys have tails that are difficult to see).

Where do orangutans live?

Orangutans are found in Indonesia and Malaysia on the islands of Borneo and Sumatra. There are three species of orangutan – the Bornean, the Sumatran, and the Tapanuli orangutan, which is also found in Sumatra. The scientific name for the Bornean orangutan is *Pongo pygmaeus*, the Sumatran orangutan is *Pongo abelii*, and the Tapanuli orangutan is *Pongo tapanuliensis*.

Orangutans live, feed and travel in the canopy, however, other animals such as snakes and lizards and many mammals including leopards, bats, porcupines and proboscis monkeys live in every layer of the forest. There are also many species of bats and thousands of species of insects.

Orangutans make a new nest in the trees every night. They make nests by bending twigs over and weaving them together which can take up to 30 minutes to build from start to finish.
Eyes
Orangutans have forward-facing eyes that allow them to judge distances between branches accurately. Their eyes are dark in colour so the bright tropical sunlight does not damage them.

Arms
Orangutans are very strong and their arms can be more than 1 metre in length! Their shoulder joints are very mobile which helps them to climb trees and travel with ease through the forest canopy.

Hands and feet
Like humans, orangutans have four fingers and a thumb on each hand. Their thumbs are ‘opposable’ which means they can grip objects. Orangutans’ feet are similarly shaped to their hands which means they can grasp branches with all four limbs.

Coat
Orangutans have orange hair on their bodies but the Bornean orangutan is usually darker than the Sumatran orangutan.

Orangutans are ‘sexually dimorphic’ which means there are visible differences between males and females. Adult males can reach 1.5m in height and weigh as much as 120kg. Females are much smaller and they grow up to 1m tall and weigh about 45kg. When mature, male orangutans develop large cheek pads and a throat pouch which he can inflate to make a loud sound called a “long-call”, an adaptation which alerts other orangutans to his presence in the dense rainforest. It is thought his cheek pads help amplify his long-call.
What do orangutans eat?

Ninety percent of an orangutan’s diet consists of fruit so they are mostly frugivorous (fruit-eating). They also eat nectar, honey, bark, leaves, insects and fungi. An orangutan’s favourite fruit is the durian, renowned for their horrible smell but orangutans love them!

Orangutans have an important role in seed dispersal. By eating fruit, they spread the seeds from the fruit which helps new trees grow.

Different trees produce fruit at different times of the year and orangutans have very good memories. They are able to find food by remembering where and when they found it last.

How do orangutans live?

Unlike gorillas, chimpanzees and bonobos, orangutans do not live in large social or family groups. They are semi-solitary animals. Adult males are generally found alone and adult females are usually accompanied by one or two offspring.

Female orangutans have their first baby when they are about 14 – 15 years old. Pregnancy lasts for 8 months. Young orangutans have a lot to learn in order to survive in the forest so they will stay with their mother until they are about 7 or 8 years old. Apart from humans, this period of dependency is longer that any other primate. Female orangutans only have one baby approximately every 8 years and will have 3 or 4 offspring in their lifetime. In the wild, orangutans can live up to 45 years or more. The oldest captive orangutan was a male called “Guas” at the Philidelphia Zoo who lived until he was 58!
In 1900, there were over 315,000 wild orangutans. Today, there are approximately 50,000. That is a decrease of more than 80% in just over 100 years! Both the Sumatran orangutan and the Bornean orangutan are classified as critically endangered. It is suspected the Sumatran orangutan may be the first great ape to become extinct in the wild.

Why are orangutans critically endangered?
As new settlements develop, more forest is turned to farmland. The greatest threat to orangutans is the loss of their rainforest habitat. Tropical rainforests are being cut down for timber and the land is cleared for mining and oil-palm plantations. Orangutans are occasionally killed or injured by plantation owners and farmers who consider orangutans to be pests. If a female orangutan is found with an infant, the mother may be killed and the infant sold into the illegal pet trade.

Orangutans have lost 80% of their habitat in the last 20 years!

What are we doing to help the orangutan?
The Malaysian and Indonesian governments are aware of the problems facing orangutans. They have made some areas of rainforest into national parks and wildlife reserves where orangutans can live in their natural habitat, undisturbed by human activity. In the Tanjung Puting National Park in Borneo, Orangutan Foundation has constructed a series of guard posts to prevent people from entering the park to cut down trees. The Foundation has also set up a rehabilitation centre to treat and care for sick, injured or orphaned orangutans with the ultimate aim of returning them back to the wild.
Plants in tropical rainforests grow in several layers:

- **Forest Floor**
  Little light reaches the forest floor so only small shrubs and mosses are able to grow here.

- **Under-storey**
  Small trees and vines grow in the under-storey. The vines twist and turn trying to capture the limited sunlight.

- **Canopy**
  The tall trees of the canopy block out most of the sunlight to the understory and the forest floor. They are supported by huge buttress roots that grow above the ground. Plants called epiphytes can sometimes be found growing on the trees.

- **Emergents**
  Emergents are the tallest trees and can sometimes grow up to 60 metres in height which can take hundreds of years!
A Day in the Life of an Orangutan

Teachers note:
This is a short story that can be used as a way to introduce the idea of orangutans to children.

Orangutans live in the rainforests of Borneo and Sumatra. Close your eyes and imagine you are in the rainforest. It is warm and wet and all around you there are large trees. Look up to the tops of the green tress. There is something orange up there, someone orange! It is Indah the orangutan and her mother. They live together up in the trees in the forest. Each day Indah and her mother go for an adventure. They swing through the branches that are brown and rough. They look for something tasty to eat. Look over there! They have found something tasty in this tree. Beautiful flowers to nibble, tasty new leaves to munch and delicious fruit to gobble. “Crunch, crunch, yum, yum.” Lots of fruit in my tum!”
Listen, “Pitter, patter, pitter, patter”, it’s raining in the forest.

Indah and her mother pick big, green shiny leaves to use as umbrellas and shelter from the rain.

After the rain stops they have a nibble on the leaves. Indah and her mother love leaf salad.

Indah in getting bored of looking for food, it’s time to play.

Indah practices climbing along a big branch, then a smaller one and an even smaller one.

“Watch out Indah, that branch looks too small to carry you!”

The branch begins to crack.

Indah’s mother watches carefully.

She stretches out one of her long orange arms and grabs Indah.

As Indah gets older she will learn all the ways of the forest. After such an exciting day, Indah is tired.

When Indah gets tired she holds onto her mother’s long, orange woolly hair to hitch a ride. Indah’s hair is short and soft.

Indah and her mother look for a good place to make their nest for the night. High up in the trees they make their nest with big, soft and comfortable leaves and branches.

Indah settles down for the night, and goes to sleep.

“Good night Indah”

Tomorrow you will have another adventure in the forest.
Forest Shapes

Frog

Hornbill

Snake

Bat

Gibbon

Tapir
Forest Shapes

Orangutan

Tarsier

Proboscis Monkey

Slow Loris

Sun Bear

Orangutan & Baby
Orangutan Face-mask
Orangutans live deep in the rainforest. Everything they need to survive can be found there. The rainforests are warm, humid and they are full of enormous trees.

If you were an orangutan what would you hear, smell, taste, feel and see when you were in the rainforest?

If I was an orangutan I would hear ________________________________

If I was an orangutan I would smell things like ________________________________

If I was an orangutan I would taste things like ________________________________

If I was an orangutan I would feel things like ________________________________

If I was an orangutan I would see things like ________________________________
Rainforest & orangutan key words

- Orangutan
- Eat
- Rainforest
- Habitat
- Mother
- Orange
- Tree
- Nest
- Swing
- Baby
- Fruit
- Sleep
Read the information below and draw arrows between the animals and plants that rely on each other to live.

<table>
<thead>
<tr>
<th>Fruit bats</th>
<th>Orangutans</th>
<th>Gibbons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit bats live</td>
<td>Orangutans live</td>
<td>Gibbons live in</td>
</tr>
<tr>
<td>in the trees and</td>
<td>trees and eat</td>
<td>trees and eat</td>
</tr>
<tr>
<td>eat fruit.</td>
<td>leaves and fruit.</td>
<td>fruit, leaves and</td>
</tr>
<tr>
<td></td>
<td>They occasionally</td>
<td>insects.</td>
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<tr>
<td></td>
<td>eat insects.</td>
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<table>
<thead>
<tr>
<th>Trees</th>
<th>Insects</th>
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<tbody>
<tr>
<td>Trees need animals to spread their seeds.</td>
<td>Some insects eat fruit, bark and sap from trees. Others suck blood from animals.</td>
</tr>
<tr>
<td>Insects help pollinate their flowers</td>
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<table>
<thead>
<tr>
<th>Wild pigs</th>
<th>Tigers</th>
<th>Monkeys</th>
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<tbody>
<tr>
<td>Wild pigs eat</td>
<td>Sumatran tigers</td>
<td>Monkeys live in</td>
</tr>
<tr>
<td>fruit and insects.</td>
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Fruit bats

Fruit bats live in the trees and eat fruit.

Orangutans

Orangutans live in trees and eat leaves and fruit. They occasionally eat insects.

Gibbons

Gibbons live in trees and eat fruit, leaves and insects.

Trees

Trees need animals to spread their seeds. Insects help pollinate their flowers.

Insects

Some insects eat fruit, bark and sap from trees. Others suck blood from animals.

Wild pigs

Wild pigs eat fruit and insects.

Tigers

Sumatran tigers eat wild pigs and monkeys.

Monkeys

Monkeys live in trees and eat fruit, leaves and insects.
Class Debate: “Should we save the rainforest?”

Local person
“We get a lot of the things we need from the rainforest - wood, food & medicine”.

Orangutan
The rainforest is their habitat. Without the rainforest, they will become extinct.

Logging Company
“We want to chop down the trees so we can make furniture and paper and give people jobs”.

UK shop-keeper
“We buy furniture from Indonesia because it is cheap and people want to buy it”.

Indonesian politician
“We need to encourage trade and industry so Indonesian people can have a good life.”

Conservationist
“The rainforest is full of wonderful animals & plants that will become extinct if we do not protect them”.
Write a story about a day in the life of an orangutan living in a rainforest.
**Questions about orangutans**

<table>
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<tr>
<th>Where are orangutans found?</th>
<th>How sociable are orangutans?</th>
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<tbody>
<tr>
<td>What are they?</td>
<td>What are the threats to orangutans?</td>
</tr>
<tr>
<td>How long do orangutans live?</td>
<td>What does this mean for orangutans?</td>
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<tr>
<td>What is arboreal?</td>
<td>What can you do to help?</td>
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<td>What do they look like?</td>
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</tr>
<tr>
<td>What do orangutans eat?</td>
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Fun fundraising ideas to get involved in

• Adopt an orangutan
• Become a member of Orangutan Foundation
• Non-uniform day
• Raffle
• Cake sales
• Sponsored walk or run – friends and family can easily donate on www.justgiving.com. Simply create a page via Orangutan Foundation’s page.
• To bring maximum impact to your event/day, you can hire Nick or Oscar, our orangutan suits.
• Whatever your idea, have fun!! Take photos and tell us all about it and we will help you in any way we can.