



PRESCHOOL RESOURCE KIT

WHAT IS A FOREST?

Forests contain a bewildering diversity of life, all intricately linked. Around the world, forests are disappearing at an alarming rate due to human actions. Let us WONDER, EXPLORE and ACT together to conserve forests!



WE WONDER

Watch the video “How to Save our Jungles” and listen carefully to the voice of Sir David Attenborough.

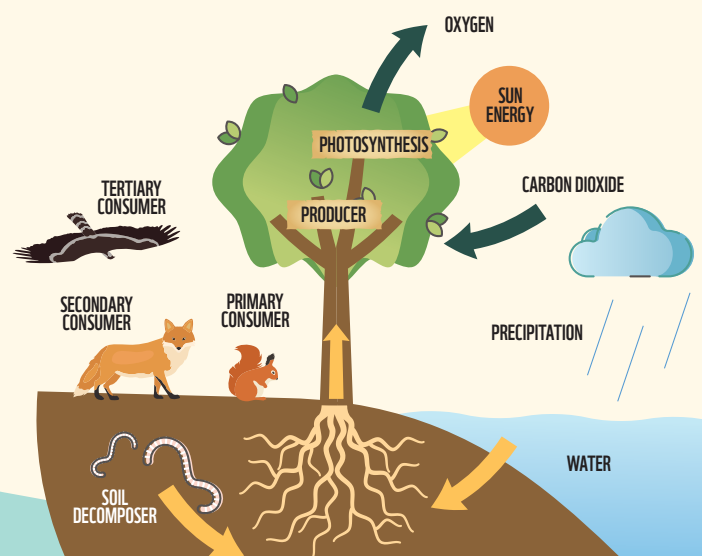


CAN YOU ANSWER THESE QUESTIONS?

1. How are forests important?
2. What do we get from forests?
3. What keeps the forests alive and working?
4. What happens every time we clear a patch of forest?
5. What happens to the forest when they lose animals and plants?
6. What should we do to protect forests?

Answer Key:

1. They regulate global weather, generate water and absorb carbon dioxide from the air.
2. Food, Wood and Medicine
3. Micro worlds (eco-systems) that are made up of many types of plants and animals that work together
4. We lose plants and animals that are important parts of the micro world in the patch of forest.
5. The forest cannot work anymore and they cannot need like water, medicine and absorb carbon.
6. Use land smartly, regrow forests where we can, and use our forests gently.



OUR AMAZING FORESTS!

CROSS SECTION OF A RAINFOREST

Think of a tropical rainforest as a HDB block - one of the many you see around Singapore! Just like there are many levels in a block of flats, a tropical rainforest has various layers made up of different trees and plants.

There are more than three trillion trees on our planet! Together, these trees make up forests, and cover around 30% of land on the earth.

Forests are super cool for many reasons:

EMERGENT

These are the tallest trees! They stand tall above the rest of the forest.

UPPER CANOPY

This area of the forest is thick with leaves and full of life.

LOWER CANOPY

Tall trunks stretch from the forest floor to the upper canopy.

FOREST FLOOR

The forest floor has shrubs and bushes. Here you will find the biggest forest animals.

1

THEY REGULATE OUR CLIMATE

Forests have a very important role in fighting climate change! Forests help absorb immense amounts of carbon, a greenhouse gas, from the atmosphere. If these greenhouse gases stay there, it will cause our planet to warm up!

2

WE DEPEND ON THEM

300 million people live in forests, including 60 million indigenous people.

Over one billion people depend on forests for their jobs! From wood collection, to eco-tourism, forests are a valuable source of income.

3

THEY QUENCH OUR THIRST

Forests give us water! Air that passes over large forest areas produces twice as much rainfall in the region as air that has passed over little vegetation.

5

THEY KEEP US SAFE

Forests protect us from natural disasters. They soak up excess water and help prevent floods. They are a natural barrier against avalanches and tsunamis by bearing the brunt of the force and reducing the impact on humans!

4

THEY HEAL US

Hundreds of millions of people rely on traditional medicines harvested from forests. From an upset stomach, to headaches and fever, people have used cures from forests for centuries.

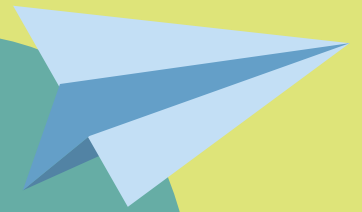
BUT FORESTS ARE UNDER THREAT!

Despite their importance, forests are under threat. We have lost nearly 40% of all forests. The total number of trees on this planet has fallen by almost half since the start of human civilisation!

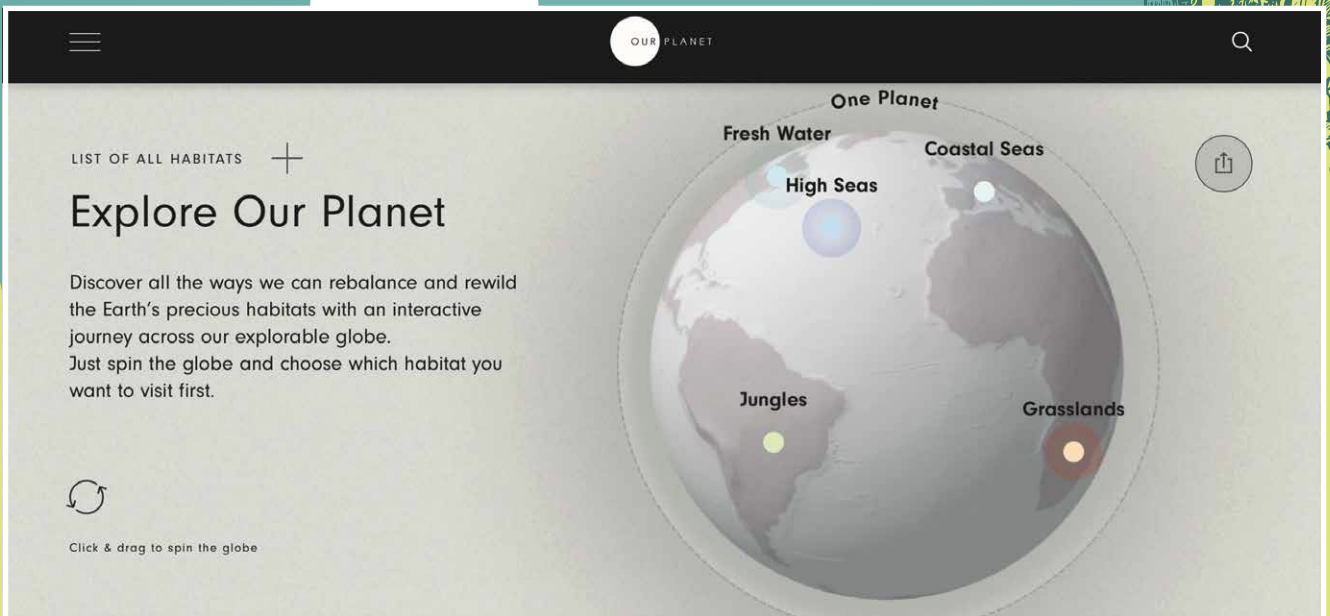
FORESTS ARE HOME TO ANIMALS

Forests are home to more than half of the world's land-based species. Orangutans call the forest canopy home, while tigers and elephants walk stealthily on the forest floor.

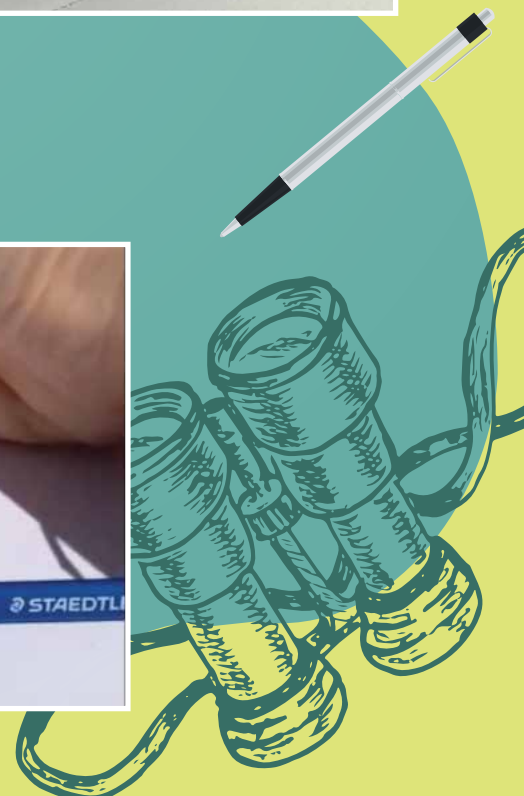




Forests are home to half of all species on land, despite covering only 7% of the land's surface. Visit the explorable globe for an interactive journey across our planet and learn more about forests.



Before you can visit a rainforest, watch this video to learn how to make field notes.



WALK THROUGH A RAINFOREST



Have you ever been to a real rainforest? They are the most fascinating places on earth — creepy crawlies, critters, bugs and all.

When you take the Rainforest Walking Trail in Singapore Botanic Gardens, you will be walking through one of the oldest rainforests in Singapore.



WE ACT

- Use the forest gently and safely
- Stay on the path
- Take nothing but photographs and fieldnotes
- Be as quiet as possible
- Bring back everything you take in with you
- Enjoy the majesty and ambience of the forest



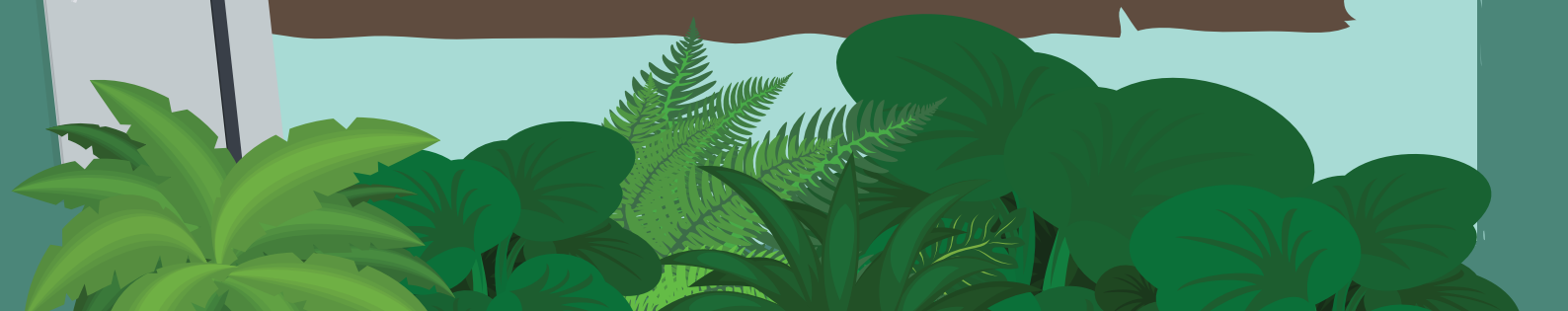
WE ACT

Take “Field Notes” at the Rainforest Walk. You may also choose to take photographs.

Record the the following in the rainforest?
How many did you discover?

- | | |
|----------------------------------|---------------------------------|
| <input type="checkbox"/> Trees | <input type="checkbox"/> Seeds |
| <input type="checkbox"/> Insects | <input type="checkbox"/> Fruits |

Did you spot the layers of the rainforest? How are they different? How may their differences help them be part of a working forest?



Extension Activity 1:

a day in the life of a

RESCUED ORANGUTAN



This is musa, a one year old baby orangutan. Like all baby orangutans, musa's mother would need to take care of him till he is seven. Sadly, he has lost his mum.

To protect him from being taken and sold as a pet, people rescued him. Now, he's learning how to be a proper orangutan with the help of humans!

Wild animals suffer if kept as pets because they need big natural spaces to be happy. This is why orangutans should not be held as pets!

9:00	Musa wakes up and drinks milk from a baby bottle. He also has a banana and a slice of watermelon. A messy eater, he ends up with watermelon smeared all over his face!
11:00	Musa has a bath because his fur got dirty from breakfast! A small bucket is filled with water and he is placed inside. Special soap is massaged into his fur. After, he is wrapped in a towel.
12:00	The older orangutans get to go out for climbing practice first. Musa and the other little ones must wait!
16:00	Finally Musa goes to climbing practice. He gets to meet the other babies, like little Sepilok! They find hanging on the ropes quite scary and squeak nervously. But they must practice hard so when the time comes for them to be released back into the forest, they can climb properly.
17:00	Nap time! After all that climbing, Musa is exhausted. His baby blanket is made into a hammock for a nap.

DID YOU KNOW?
Orangutans share 97% of their DNA with humans.

While Musa's story is cute, orangutans should never grow up without their mothers. They are very emotional and human-like. They can even throw tantrums when they want to be cuddled!



QUIZ!

Orangutans live only in Indonesian and Malaysia! Can you guess how many species of orangutans are there?



Orangutans are one of Asia's most loved animals! They are similar to us, and live close to Singapore! Sadly, they are in danger. Rescue centres all over Indonesia and Malaysia are now caring for orangutans who have lost their homes or their mothers.

INVESTIGATE:



Why are orangutans like Musa losing their homes and mothers? Watch the first 16 minutes of this video to find out more about Orangutans and Forests.

Extension Activity 2:

MAKE YOUR OWN PAPER!

Is an adult with you?
This activity requires the use
of sharp objects and tools.
Please have an adult around
at all times!

Most paper can only be recycled approximately eight times. So let's conserve and recycle as much paper as possible — starting from our homes!

WHAT YOU'LL NEED:



Blender



A whole section of newspaper



Two-and-a-half pages of newspaper



5 cups of water



Deep pan



A piece of screen to fit inside the pan



Measuring cup



Flat piece of wood the size of a newspaper's front page



Waxed paper

Helpful hint: window screen material works best!

INSTRUCTIONS:



1 Tear the two-and-a-half pages of newspaper into tiny strips.



2 Place the strips in a blender with 5 cups of water. Cover the blender and blend the newspaper and water.

ASK FOR PERMISSION TO USE THE BLENDER AND HAVE AN ADULT SUPERVISE THIS STEP



3 Pour the blended paper pulp into the measuring cup.



4 Pour about 1 inch (2.5cm) of water into the pan. Place the screen in the pan.



5 Pour one cup (240 ml) of pulp over the screen and spread it out evenly with your fingers.



6 Lift the screen and let the water drain off.

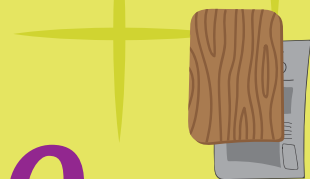


7 Open the newspaper section to the middle and place waxed paper on it. Place the screen with the pulp on the waxed paper. Close the newspaper.



THIS STEP IS VERY IMPORTANT!

8 Carefully flip over the newspaper section so the screen is on top of the pulp.



9 Place the flat piece of wood on top of the newspaper to extract the extra moisture.



10 Open the newspaper and take out the screen. Let the pulp dry for one day.



11 Once your paper pulp is dry, peel it off and get ready to write!

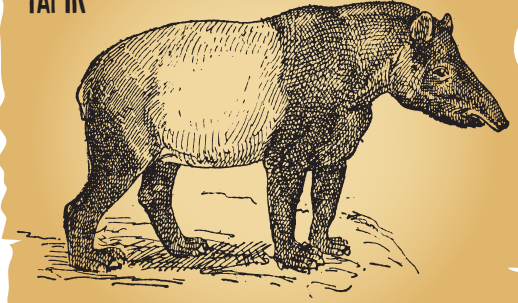
Extension Activity 3:

MATCH THE PAWPRINT OF THESE FOUR ANIMALS!

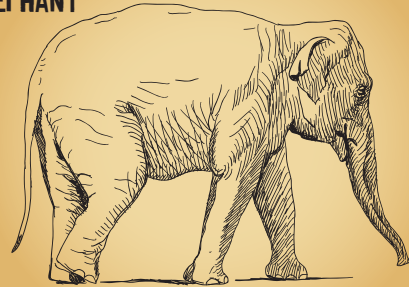
Print the cards to play a matching game.



TAPIR



ELEPHANT



GIANT PANDA



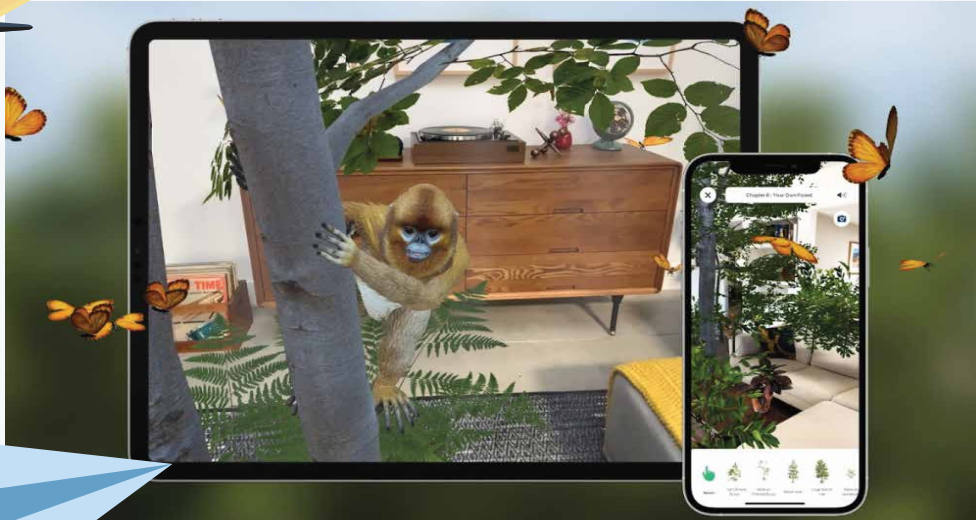
ORANGUTAN



LET'S GET CREATIVE!

Extension Activity 4:

WWF Forests Immersive augmented reality app brings the forest into your home



Extension Activity 5:

Are you inspired by all the nature documentaries you watch? If so, why not try making your own wildlife documentary at home? Watch this video to learn how to set the nature stage, and create your stop motion nature documentary.

