

LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

Rainforest Super Senses

Summary

What would you like your rainforest Super Sense to be?

This interactive lesson uses augmented reality to contrast our human senses with the weird and wonderful sensory abilities of some of the animals found in the rainforest – a bee, a bat and a mosquito. Experience the rainforest like never before!

Key information

1-hour lesson

Suitable for KS1

Focus on Science and Geography

Activity Details

Outcomes and Curriculum links

This lesson enables students to:

- Locate some of the world's Tropical Rainforests, describing what conditions are like there and why they are ideal for plant growth.
- Identify the 'super senses' (adaptations) of 3 different rainforest animals and describe in simple terms how they use their 'super sense' to find their food.
- Summarise the animal/plant relationships they have learnt about in terms of how they depend on each other (interdependence).

This lesson links to themes from the following subject areas:

Yr1 Science – identify and name of a wide variety of plants and animals; identify and describe the basic structure of a wide variety of flowering plants; identify which part of the body is associated with which sense.

Y2 Science – identify that most living things live in habitats to which they are suited; describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other; describe how different animals obtain their food from plants; identify and name different food sources; describe how plants need water, light and a suitable temperature to grow and stay healthy.

LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

KS1 Geography – identify the location of hot and cold areas of the world in relation to the equator and the poles.

Key vocabulary: humid, insect, mammal, sense, adaptation, pollen, nectar, nocturnal, echo.

Resources

To set up the lesson you will need:

- Rainforest Super Senses Lesson Plan
- Rainforest Super Senses PowerPoint
- Printed sets of the 'Living Lens Cards' (one per group)
- Outside space
- Tropical fruit to taste (e.g. mango / pineapple / banana)

Lesson Plan Key: **Blue** – change slide **Yellow** – instructions about how to navigate the platform

Lesson Plan

Getting started - Tuning into our human senses (0 - 15 minutes)

Slide 1

Begin by sharing the session title - 'Rainforest – Super Senses'

Slide 2

Share the challenge (learning outcomes) with the group:

Your challenge today is to become 'Rainforest Supersenses'!

To do that you will need to:

- *Find some of the world's Tropical Rainforests on the map and say what it's like there.*
- *Name 3 animals from the Tropical Rainforest and the plant which they are linked to.*
- *Describe the 3 unusual 'super senses' that these animals have and find out how each 'super sense' helps the animal to find its food.*

LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

Slide 3

To get started, go outside and tune into your 5 senses. Stand in a circle and ask the children to talk to the person next to them to see if they can remember the 5 senses. In turn ask the children what the 5 senses are and what body part we use for each one. Do a quick 'senses scavenger hunt' using each one:

- How many different sounds can you hear in 15 seconds? (hearing)
- Can you find 3 different smells? (smell)
- Can you find something rough, smooth, squashy? (touch)
- How many different shades of green can you spot? (sight)
- Finally - Taste something from the rainforest (taste)

Collect feedback as you circulate with the children.

Go back to the classroom.

Sum up the activity – *We should be completely tuned into our different senses now! Our senses are incredibly important. We use them to find out what the world around us is like. Which sense do you think is most important for humans and why?*

Collect feedback and discuss.

Main activity:

Part 1 – What is it like in a Tropical Rainforest? (15 - 30 minutes)

A moment ago, we used our senses to find out what it is like outside at our school, but what would it be like in a Tropical Rainforest? Show the students the map of the world (slide 4). Ask them to find where we live and then to point out where they think we find Tropical Rainforests. Clarify that we find Tropical Rainforests close to the equator (drawn on the cartoon map). These places may be a long way away from where we live.

Slide 5 *Let's find out what it's like in a Tropical Rainforest by beaming into the Eden Project in Cornwall, where they have grown a rainforest inside a giant greenhouse. We can look around the rainforest there using special cameras.*

Click on the **Invisible Rainforest** link on **slide 5**. Select **'LIVING LENS KS1/KS2'** followed by **'KS1'**. As a class have a look around the biome by dragging and zooming the camera. Make sure sound is on.

LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

Ask the children to discuss what they think it is like in a real Tropical Rainforest by considering the questions below:

- What would you see?
- What might you hear?
- What might it smell like?
- What tropical fruits might you eat (taste)?
- What would it feel like (touch)? Would it be warm or cold? Would the air be 'sticky' or 'dry'?

Collect feedback and record a list on the board. Summarise the idea that, because tropical rainforests are close to the equator, they are very hot, wet, damp, receive intense (strong) sunlight, very green with dense vegetation, muddy, alive with a huge variety of plants and animal. This may be very different from where we live.

Part 2: Animals with Super Senses! (30 - 55 minutes)

Refer back to the start of the workshop - *Just like we have senses to help us live in our environment the animals in the rainforest also have 'special super senses' that help them to survive in the there. Some of these animals have senses that we don't have and that we would find hard to imagine! It would be like having superpowers!*

Next, we are going to meet 3 of these animals from the rainforest, find out which plant they have a relationship with and how they use their 'super senses' to find their food.

Click on '**LIVING LENS**' - you can now look around a 360-camera view of SE Asia. Click on '**START**', read the introductory text and then click '**NEXT**'. There are 3 plants labeled here – the Starfruit Tree, the Jade Vine and the Titan arum. Find them on the 360 view.

.....

Click on '**1. Star fruit tree**'. Look at the photo of the plant. Can the children identify some of the features of the plants such as leaves, stems, flowers? Read the text to



LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

find out how the bee has a close relationship with this tree. You could ask the children what type of animal a bee is – insect, mammal, fish, bird, reptile?

Now click **'START BEE'** to view the world as a bee does and find out how the bee finds its food.

After the clip, ask the children to describe what they saw happening and verbally check for understanding by asking the following questions:

- *What is the animal and what is its plant partner?*
- *What is the animal's 'super sense' and how does it help it find its food?*

Quick up and about activity: Ask the children to imagine they are a bee and that they were able to see ultraviolet light. Ask them to 'fly' around the room (making buzzing noises!), and find the colour/object that stands out the brightest to them.

Click **'NEXT'** to take you back to the 360 view.

.....

Next, click on **'2. Jade vine'**. Look at the photo of the plant. Can the children identify some of the features of the plants such as leaves, stems, flowers? Read the text to find out how the fruit bat has a close relationship with this plant. You could ask the children what type of animal a Fruit Bat is – insect, mammal, fish, bird, reptile?

Now click **'START BAT'** to view the world as a Fruit Bat does and find out how the Fruit Bat finds its food.

After the clip ask the children to describe what they saw happening and verbally check understanding by asking the following questions:

- *What is the animal and what is its plant partner?*
- *What is the animal's 'super sense' and how does it help it find its food?*

Click **'NEXT'** to take you back to the 360 view.

.....

LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

Lastly, we are going to find out about one more animal and plant duo. However, this time it's a bit different because in this case the animal is tricked by the plant.

Click on 3. **'Titan arum'**. Look at the photo of the plant. What do they think they are looking at? It's a giant flower!

Read the text to find out the relationship between the mosquito and the plant. You could ask the children what type of animal a Mosquito is – insect, mammal, fish, bird, reptile?

Now click **'START MOSQUITO'** to view the world as a mosquito does and find out how the mosquito's 'super sense' its tricked by the flower.

After the clip, ask the children to describe what they saw happening and verbally check understanding by asking the following questions:

- *What is the animal and plant called?*
- *What is the animal's 'super sense' and how does it help it find its food?*
- *In what way did the plant 'trick' the mosquito?*

Collect their ideas and clarify understanding.

Quick up and about activity: Ask the children to imagine that they are the mosquito and to stick their arms out of the top of their heads, like antennae. Ask them to walk around the room and use their antennae to locate the warmest place/surface they can find. (Caution: hot radiators, pipes). They will have to use touch to find the warmest spot but remind the children that the mosquito can sense all of this from a distance using just its antennae. Amazing!

Click **'NEXT'** to take you back to the 360 view of the garden and ask the pupils *'What was your favorite view of the rainforest?'*

.....

LESSON PLAN

CREATED FOR TEACHERS BY EDEN'S EDUCATION TEAM

Card Sort

Consolidate the learning from the Living Lens using the card sorting activity. Give each group the set of 12 cards. They are going to group them into 3 sets (of 4 cards). First, ask them to match the correct animal and plant together. Then, ask them to add in 2 cards which explain how that animal's super sense works. View the groupings and check their understanding use [slides 6, 7, 8](#) to help.

Pose the question of pollination – *Very often when an insect (like a bee) visits a flower to drink its nectar it also does something else which helps the plant. What else does the insect do?* Give the children time to discuss and then collect their feedback getting them to describe what they already know about pollination and why it is important. You can use [slides 9, 10, 11](#) to help explain. It's enough that they understand that when the insect travels from flower to flower it will be continually 'picking up' pollen grains and transferring them to other flowers. This is called pollination and when a flower receives pollen it is then able to make seeds which will grow into new plants.

By way of summing up, ask the children what the most surprising or interesting thing was that they have learnt about these animals and their plant partners in the Tropical Rainforest? Collect their ideas.

Click '[NEXT](#)' followed by '[FINISH](#)' and you will be taken back to the 360 view of the rainforest.

Finally: What would you like your super sense to be? (55 - 60 minutes)

Finally, ask the children: *If you lived in the tropical rainforest what would you like your 'super sense' to be and how would it help you?* Before they begin discussing this remind them about the conditions in the rainforest (recorded on the board at the beginning) and [play them the 'RAINFOREST FLY-THROUGH'](#). As the clip plays pan the camera around to give the children a sense of what it is like to move through the rainforest.

Give the students a few moments to talk about the question and then collect feedback on their ideas.

[Slide 12](#) Refer back to the challenge set at the start and review what they have done. *You have completed your challenge and are now 'Rainforest Supersensors'! Well done!* [Slide 13](#).