

22 April

Earth Day Lesson Plan

Level with Me...

Year 6

- This pack contains 2, ready to use 1 hr lesson plans.

Key Inquiry Question:
Why can't we just chop down trees and replant?

- What are the different levels a rainforest can be divided into?
- What is biodiversity?
- What are ghost trees?

Possible Culminating Activities:

- Create a collage to demonstrate the different layers in a rainforest and the animals that live in them.
- Create a board game as a fundraising activity to educate other children, teachers and parents about reducing carbon emissions through use of fossil fuels in everyday life.

Note: The Prince's Rainforest Project for Schools has been used as a central resource for this unit. The web address is: <http://schools.rainforestsos.org/>

National Curriculum Objectives addressed in this unit:

Science

Key Stage 2

Sc1 Scientific enquiry

Knowledge, skills and understanding

Ideas and evidence in science

1. Pupils should be taught:
 - a. That science is about thinking creatively to try to explain how living and non-living things work, and to establish links between causes and effects [for example, Jenner's vaccination work].

Sc2 Life processes and living things

Life processes

1. Pupils should be taught:
 - a. That life processes common to humans and other animals include nutrition, movement, growth and reproduction
 - b. That life processes common to plants include growth, nutrition and reproduction
 - c. To make links between life processes in familiar animals and plants and the environment in which they are found.

Living things in their environment

5. Pupils should be taught:
 - a. About ways in which living things and the environment need protection.

Adaptation

- b. About the different plants and animals found in different habitats
- c. How plants and animals in two different habitats are suited to their environment.

Design and Technology

Key Stage 2

Knowledge, skills and understanding

Developing, planning and communicating ideas

1. Pupils should be taught to:
 - a. Generate ideas for products after thinking about who will use them and what they will be used for, using information from a number of sources, including ICT-based sources
 - b. Develop ideas and explain them clearly, putting together a list of what they want their design to achieve
 - c. Plan what they have to do, suggesting a sequence of actions and alternatives, if needed
 - d. Communicate design ideas in different ways as these develop, bearing in mind aesthetic qualities, and the uses and purposes for which the product is intended.

Working with tools, equipment, materials and components to make quality products

2. Pupils should be taught to:
 - a. Select appropriate tools and techniques for making their product
 - b. Suggest alternative ways of making their product, if first attempts fail
 - c. Explore sensory qualities of materials and how to use materials and processes
 - d. Measure, mark out, cut and shape a range of materials, and assemble, join and combine components and materials accurately
 - e. Use finishing techniques to strengthen and improve the appearance of their product, sign a range of equipment including ICT.

Evaluating processes and products

3. Pupils should be taught to:
 - a. Reflect on the progress of their work as they design and make, identifying ways they could improve their product
 - b. Carry out appropriate tests before making any improvements
 - c. Recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose.

Citizenship

Key Stage 1

Knowledge, skills and understanding

Developing confidence and responsibility and making the most of their abilities

1. Pupils should be taught:
 - a. To talk and write about their opinions, and explain their views, on issues that affect themselves and society
 - c. To face new challenges positively by collecting information, looking for help, making responsible choices, and taking action.

Preparing to play an active role as citizens

2. Pupils should be taught:
 - a. To research, discuss and debate topical issues, problems and events

Geography

Key stage 2

Knowledge, skills and understanding

Geographical enquiry and skills

1. In undertaking geographical enquiry, pupils should be taught to:
 - a. Ask geographical questions [for example, 'What is this landscape like?', 'What do I think about it?']
 - d. Identify and explain different views that people, including themselves, hold about topical geographical issues [for example, views about plans to build an hotel in an overseas locality]
 - e. Communicate in ways appropriate to the task and audience [for example, by writing to a newspaper about a local issue, using email to exchange information about the locality with another school].

2. In developing geographical skills, pupils should be taught:

- a. To use appropriate geographical vocabulary [for example, temperature, transport, industry]
- d. To use secondary sources of information, including aerial photographs.

Knowledge and understanding of places

3. Pupils should be taught:
 - a. To identify and describe what places are like [for example, in terms of weather, jobs]
 - b. The location of places and environments they study and other significant places and environments [for example, places and environments in the news]
 - c. To describe where places are [for example, in which region/country the places are, whether they are near rivers or hills, what the nearest towns or cities are]
 - d. To explain why places are like they are [for example, in terms of weather conditions, local resources, historical development]
 - e. To identify how and why places change [for example, through the closure of shops or building of new houses, through conservation projects] and how they may change in the future [for example, through an increase in traffic or an influx of tourists]
 - g. To recognise how places fit within a wider geographical context [for example, as part of a bigger region or country] and are interdependent [for example, through the supply of goods, movements of people].

Knowledge and understanding of patterns and processes

4. Pupils should be taught to:
 - a. Recognise and explain patterns made by individual physical and human features in the environment
 - b. Recognise some physical and human processes and explain how these can cause changes in places and environments.

Knowledge and understanding of environmental change and sustainable development

5. Pupils should be taught to:
 - a. Recognise how people can improve the environment or damage it, and how decisions about places and environments affect the future quality of people's lives
 - b. Recognise how and why people may seek to manage environments sustainably, and to identify opportunities for their own involvement.

Lesson 1hr

- Objectives
- To identify the importance of diversity in a forest
 - To identify the different layers in a rainforest

Activities

As you know today is Earth Day and I would like to pose this question:
 Why can't we just chop down the trees in the rainforests and plant new ones?
 Conduct a PMI about this issue and allow children to work on this in groups.
 (PMI stands for Positives, Negatives, Interesting/Improve)

P	M	I

Groups to feedback main points to the class.

- Ask I would like to compare this situation to school to get you thinking. I want to you conduct another PMI but this time I want you to think about what our school would be like if it only had Year 3 students in it. Allow children time to think, discuss and record ideas and share these with the class.
- Say

Discuss Draw out the word 'diversity' and say that by just having one year level the amount of diversity/difference would be reduced to a great extent. What would happen each year when all the children leave? What benefits are there for the school from having children that have been there longer? What benefits are there for the children? These 'layers' of children make the school environment more a more stable place – children feel safe because they know routines and know where things are. Discuss with children who have been 'new' to the school how important these things are.

- Say Just as a school has 'different layers' so do rainforests, by just chopping them down we would lose what is called biodiversity.

Activity

Discuss with children which order the layers come in:

- Emergent layer: layer at treetop height
- Canopy layer: where the leaves form a 'ceiling'
- Understory: layer that is dark and humid
- Shrub layer
- Forest floor

Give children a sheet that has a variety of animals on it with a description of where each animal lives – children match up the animal to the layer it mostly lives in. (Prince's Rainforest Project 'Why rainforests matter' fact sheet). Children then create a collage using sugar paper. First they could create the trees labelling each layer. Then children could draw the animals that live in each layer and stick these on top to form a collage.

As an extension the children could label each layer with additional information about the layers and/or why certain animals are suited to that habitat.

Plenary

Let's just say we did chop down this rainforest and planted a whole new renewable forest filled with pine trees that are great for making furniture and houses. What would happen to the biodiversity?

Show: Prince's Rainforest Trust video:

Vanishing Species.

Resources

Table – see resources below;

- Internet: Prince's Rainforest Project – Vanishing Species
- Prince's Rainforest Project fact sheet 'Why rainforests matter' the link is in the resources below
- Brown and green sugar paper and white paper for animals

Assessment

I can identify the different layers in a rainforest and say what trees and animals live in each.

Lesson	1hr
Objectives	<ul style="list-style-type: none"> – To know that carbon is released back into the atmosphere when trees are cut down – To create a boardgame to educate others about reducing carbon emissions
Activities	<p>Introduction</p> <p>Ask Children to review terms learned in last lesson. Who can name the five layers in a rainforest? Who can name an animal that lives on the emergent level? Etc.</p> <p>Ask Who can explain what biodiversity is? Does anyone know of any other reasons why we shouldn't chop down trees?</p> <p>Show 'Ghost Trees' video from 'Prince's Rainforest website.'</p> <p>Ask For thoughts and feedback. What is carbon? Where does it come from? Show children youtube video 'Humanity Beware: man and the carbon cycle' www.youtube.com/watch?v=Fc7CueUYfO4&feature=related</p> <p>Activity</p> <p>Ask children what we are going to do about this to raise awareness about reducing the amount of carbon we are using? How can we reduce the amount of carbon we are using? (switch off lights, ask the Year 6 class if they are completing these units.)</p> <p>Ask groups of children to create a board game to educate other children in the school about deforestation and the carbon cycle. We could ask different classes to visit and bring with them a silver coin to raise money for a charity like Healthy Planet. This could be held after an assembly about Earth Day where the other children in the class have shared what they learned. Parents could also be invited to play the games and donate some money.</p> <p>Allow children time to brainstorm and create their board game. It could be as simple as moving up the five levels in the rainforest – like snakes and ladders or more complicated like Trivial Pursuit where children could collect knowledge from each class and use these to write questions.</p> <p>Plenary</p> <p>Discuss ideas that children have come up with for their board games. Discuss how the class is going to promote the fundraising e.g. through the school newsletter, posters and word of mouth around the school.</p>
Resources	<ul style="list-style-type: none"> – Internet with link Prince's Rainforest Trust – Ghost Trees
Assessment	I can create a board game that educates about reducing the amount of carbon used.



Working with the



Geographical
Association

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Published by Healthy Planet

Healthy Planet is a charity set up to inspire, encourage and support people around the world and helps you to make a positive & measurable difference.

www.healthyplanet.org/earthday

