

## Learning Programme Year 2 Geography Module 3 Tropical Rainforest updated 2018

Topic/ Content	Objectives/Skills Module 3 Tropical Rain Forest booklet	Homework	Assessment	Success Criteria (for E/S/D at KS3)	Stretch & Challenge (Thirst for Learning)
Lesson 1	<p>Find a map to locate the main areas of Tropical Rainforest and describe their location  <a href="https://www.youtube.com/watch?v=6uUB7LjJtM">https://www.youtube.com/watch?v=6uUB7LjJtM</a>                      Facts about Tropical Rainforests</p> <p>Complete the climate graph for Manaus in Brazil and describe its characteristics</p> <p>Explain why the Equator is hot and the Poles are cold                      Work through the exercises on the power point presentation  <a href="https://www.youtube.com/watch?v=PggQLThW7QA">https://www.youtube.com/watch?v=PggQLThW7QA</a>                      Effect on direct and indirect sunlight on temperature</p>	Design a front cover for the booklet.	Teacher assessed	<p><b>Developing</b> – Will be able to give one reason why the Equator is hot and the Poles are cold</p> <p><b>Secure</b> – Will be able to give 2 reasons why the Equator is hot and the Poles are cold</p> <p><b>Excellent</b> - Will be able to give three reasons why the Equator is hot and the Poles are cold</p>	Drawing a climate graph on a computer.
Lesson 2	<p>The structure of the rainforest                      Find a picture to show the different layers in the rainforest and describe what is going on in each layer</p> <p>Start the homework on how the vegetation is adapted to the climate  <a href="https://www.youtube.com/watch?v=H9MV5CgPglQ">https://www.youtube.com/watch?v=H9MV5CgPglQ</a>                      Tree and plant life in the jungle - David Attenborough - BBC wildlife</p> <p><a href="https://www.youtube.com/watch?v=zu6p3kdfqwg">https://www.youtube.com/watch?v=zu6p3kdfqwg</a>                      How vegetation is adapted to the climate</p> <p><a href="https://www.youtube.com/watch?v=C1Ib0-BIBKU">https://www.youtube.com/watch?v=C1Ib0-BIBKU</a>                      How plants adapt to the rainforest</p> <p><a href="https://www.youtube.com/watch?v=0cGRujABwuQ">https://www.youtube.com/watch?v=0cGRujABwuQ</a>                      BIGGEST flower in the world: Rafflesia arnoldii</p>	Research and find pictures to show how the following features of the vegetation are adapted to the climate. Buttress roots Lianas Leaves Epiphytes Pitcher plant Trunks of trees Under storey leaves	Teacher assessed	<p><b>Developing</b> -be able to describe some of the different layers of the rainforest and how at least two characteristics of vegetation are adapted to the climate.</p> <p><b>Secure</b> - be able to describe in more detail some of the layers of the rainforest. and at least 4 adaptations of the vegetation to the climate</p> <p><b>Excellent</b> - Be able to describe in more detail all of the layers in the rainforest                      Be able to show how a wide range of vegetation species are adapted to the climate.</p>	Research skills on the internet and text books

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Lesson 3	<p>How animals are adapted to the rainforest. Research and find pictures to show how the following animals are adapted to the rainforest Orang-utan Sloth Choose a number of other creatures - big cats, frogs, reptiles, insects or birds are adapted.</p>	Complete this section of the booklet.	Teacher assessed	<p><b>Developing</b> -be able to describe 2 ways different animals are adapted to the rainforest.</p> <p><b>Secure</b> - be able to describe in more detail 3 ways animals are adapted to the rainforest.</p> <p><b>Excellent</b> - Be able to describe in more detail how a wide range of creatures are adapted to the rainforest.</p>	Research skills on the internet and text books
Lesson 4	<p>Why the rainforest is important to us - look at the following Carbon dioxide - store Oxygen Source of food Source of new medicines Source of timber Biodiversity Impact on the Earth's water cycle You should include pictures as well as writing <a href="https://vimeo.com/10563513">https://vimeo.com/10563513</a>  <a href="https://www.youtube.com/watch?v=nz-2Fh8LWQc">https://www.youtube.com/watch?v=nz-2Fh8LWQc</a> Why are rainforests important?  <a href="https://www.youtube.com/watch?v=cSFCZRZJJOs">https://www.youtube.com/watch?v=cSFCZRZJJOs</a> Why protect the rainforest?</p>		Teacher assessed	<p><b>Developing</b> – Be able to explain 2 ways we benefit from the rainforest.</p> <p><b>Secure</b> - be able to describe 4 of the ways the rainforest is important to us.</p> <p><b>Excellent</b> - be able to describe in more detail a wider range of ways that the rainforest is important to us.</p>	Research skills on the internet and text books

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Lesson 5	<p>Describe the soils in the rainforest and how nutrients are cycled.</p> <p>Deforestation – what is it?</p> <p>Where is it taking place?</p> <p>Rates of deforestation</p> <p>Pictures before and after</p> <p>Effects of deforestation</p> <p><a href="https://www.youtube.com/watch?v=Nc7f5563azs">https://www.youtube.com/watch?v=Nc7f5563azs</a></p> <p>Deforestation Effects on Climate</p> <p><a href="https://www.youtube.com/watch?v=AVh2DEgppsM">https://www.youtube.com/watch?v=AVh2DEgppsM</a></p> <p>Rainforest Deforestation and its Effects</p> <p><a href="https://www.youtube.com/watch?v=yvdfgrnvu6Q">https://www.youtube.com/watch?v=yvdfgrnvu6Q</a></p> <p>What is Deforestation?</p>	Complete this section of the booklet	Teacher assessed		Research skills on the internet and text books
Lesson 6+7	<p>Explain how the following activities are destroying the rainforest</p> <p>Mining – Gold / Iron ore</p> <p>Farming – Soya and ranching</p> <p>Palm oil production</p> <p>HEP – Dams – name an example</p> <p>Roads – Trans Amazonian Highway</p> <p>Forestry - hardwoods</p> <p><a href="https://www.youtube.com/watch?v=2d5d1Z6AFH4">https://www.youtube.com/watch?v=2d5d1Z6AFH4</a></p> <p>Gold at the Amazon's expense - 08 Jun 08</p> <p><a href="https://www.youtube.com/watch?v=KL3DSZDFpJQ">https://www.youtube.com/watch?v=KL3DSZDFpJQ</a></p> <p>Vast iron mine carved out of Brazil's forest</p> <p><a href="https://www.youtube.com/watch?v=SXeh5cqB3oc">https://www.youtube.com/watch?v=SXeh5cqB3oc</a></p> <p>Mapping the Damage Caused by Gold Mining in the Amazon</p> <p><a href="https://www.youtube.com/watch?v=kJuy2U2AWpY">https://www.youtube.com/watch?v=kJuy2U2AWpY</a></p> <p>The Amazon Rainforest - Hydroelectric Dams</p> <p><a href="https://www.youtube.com/watch?v=8qLObh08g-U">https://www.youtube.com/watch?v=8qLObh08g-U</a></p> <p>Destruction of the Rainforest 17 MINUTES</p>	Finish this section of the booklet	Teacher assessed		

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Lesson 8	<p>Show how Ecotourism is a more sustainable way to use the rainforest Use the example of the Tataquara Lodge in the Amazon to illustrate. How does this protect the rainforest and help local people?</p> <p><a href="https://www.youtube.com/watch?v=HWUzoJCUmDM">https://www.youtube.com/watch?v=HWUzoJCUmDM</a> Geography Revision - Tourism case study - Tataquara Lodge, Para, Brazil</p>		Teacher assessed		
Lesson 9	<p>Last page of the booklet Can do a crossword based on work in the booklet A quiz – Questions can include pictures - put the answers at the bottom of the page upside down Amazing / Unusual facts about the rainforest – with pictures</p>	Finish the booklet and send it by email to the teacher for marking	Teacher assessed using the mark scheme attached		

### Mark Scheme for the Tropical Rainforest booklet

Name	Missing	Partial	Complete
Location of forests map + description			
Climate graph + description – give figures			
Why it is hot angle of rays +distance rays travel through the atmosphere			

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Why it is wet – convectional rainfall			
Structure of the rainforest diagram + description			
Adaptations of vegetation - minimum of 4			
Adaptations of animals minimum of 3			
Benefits of the rainforest – minimum of 4			
Soils in the rainforest and nutrient cycling			
What is deforestation, location, rates, effects			
Deforestation Farming cattle and palm oil			
Deforestation HEP – named example			
Deforestation mining – named example			
Deforestation Trans Amazon - impact			
Deforestation lumber – types of wood			
Ecotourism and Tataquara Lodge – why is it sustainable?			
Something different Crossword, Quiz, Amazing facts etc			



Appendix 1 Mark scheme for Geography in the News articles.

Mark scheme for Geography in the News	Effort Month	Name
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	Yes	No
Geography in the News Logo		
Date of event		
Eye catching headline		
Map to locate area and caption		
Picture(s) and caption(s)		
Sufficient information about event		
Links to Geography, places, key terms		
Evidence of copy and paste		
Appropriate font size		
Good use of space on the page – fills the page		
Layout of article – uses columns and paragraphs		
Accurate spelling, punctuation and grammar		
Attempts to explain the event as well as describe it		

Like

Improve

Marked by

# Geography in The News.

Bartholomew will be asked to produce a power point slide on some aspect of Geography that has made the news. The article should be in **Portrait not landscape**. It might be about an earthquake, volcano. Coastal erosion, melting ice sheets, storms etc or something to do with human geography – migration, population growth, new industries opening up or old one closing down, impact of edge of city shopping centres, tourism – staycation etc Your work will be marked by another student using the mark scheme opposite.

You will say what the good points are –

# GEOGRAPHY IN THE NEWS

24.04.15

## APRIL EDITION

# SKY OF FLAME

**It looks like a nuclear apocalypse... but this is the full force of Chile's Calbuco Volcano blasting fiery debris 30,000 feet into the sky.**

More than 4000 people were evacuated as a 12-mile clearance zone was declared around the mountain which had lain dormant for 40 years.

**Lightning coming from the centre of the eruption**



The volcano erupted on Wednesday 22<sup>nd</sup> April with a second powerful blast yesterday, April the 23<sup>rd</sup>. Lava and ash covered nearby towns. Flights were cancelled and officials warned the dust could contaminate water and damage lungs. Local Mayor Gervoy Paredes said: "Residents are very, very frightened."



Map of Chile, the Calbuco Volcano has been circled

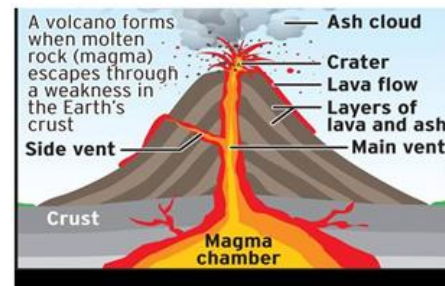
### Why Volcanoes erupt

Calbuco, like 90% of all volcanoes, lies within the 'Ring of Fire', where tectonic plates converge along the edges of the Pacific Ocean. The plates are rock slabs which make up the Earth's surface, floating on a layer of molten rock under the crust.

Volcanoes are vents that allow molten rock, debris and gases to be released from the magma chambers. Eruptions occur when gas dissolves under pressure within the magma, until it cannot be contained. Volcanic mountains are formed over millions of years as boulders and lava thrown up during eruptions harden. Lava flows reach 1,200C or more, burning everything in their path. Boulders of hardening lava can rain down on villages, while mud flows from rapidly melting snow can bury towns. Ash and toxic gases cause lung damage and other health problems. Scientists estimate that more than 260,000 people have died in the past 300 years from volcanic eruptions. About 1,900 volcanoes are considered to be active and likely to erupt again.

**This has been a report by Alfie Pickles, 1B/NEWA**

Diagram showing the internal structure of a volcano



**Links to geography:** Chile, Calbuco volcano, volcano, mountain, lava, ash, dust, water, 'Ring of Fire', tectonic plates, Pacific ocean, molten rock, debris, gases, magma chambers, eruption, boulders, 1,200C, toxic.