

This pack includes work for the next 2 weeks -Monday 4th May to Friday 15th May (this is about 1.5 hours of working time).

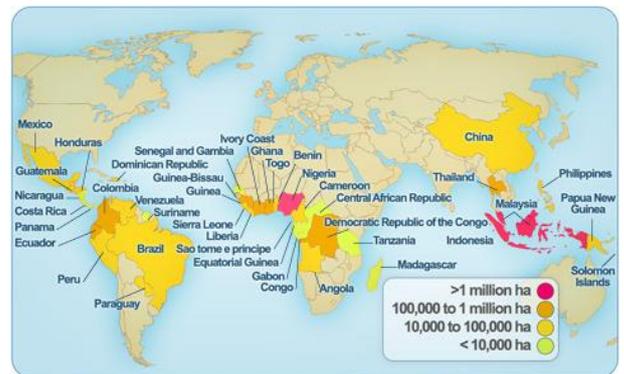
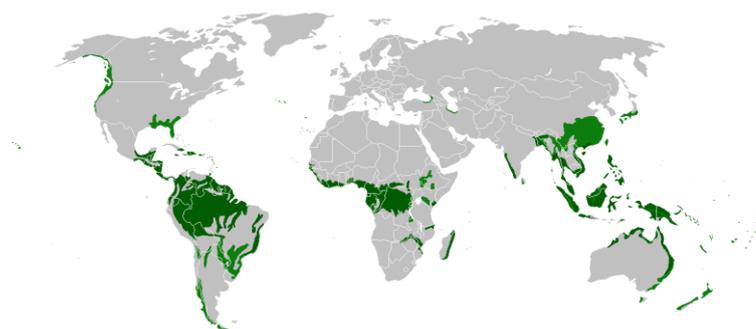
It is divided up into sub-sections to help you work through it gradually. There extension tasks if needed.

This term we will be learning about an important global geographical issue which links to your geography & biology GCSE. We have tried to include other skills to help subjects like maths as well.

At the end of each section we will send you the answers so you can check & return your marks. The numbers in brackets are the marks for each question.

Recap

The map on the left shows the distribution of tropical rainforests around the world, the map on the right shows the countries where palm oil is grown.



1. What is the link between the two maps? _____

(1 mark)

2. Indonesia is a country with a tropical climate. Using figures (from the last pack) what is a tropical climate like?

(2 marks)

3. Is Indonesia a LIC/NEE or HIC? Include evidence in your answer. _____

(2 marks)

4. Indonesia is growing more and more palm oil. Why? Try to include human/economic and physical reasons for this. Three ideas.

a. _____ (1 mark)

b. _____ (1 mark)

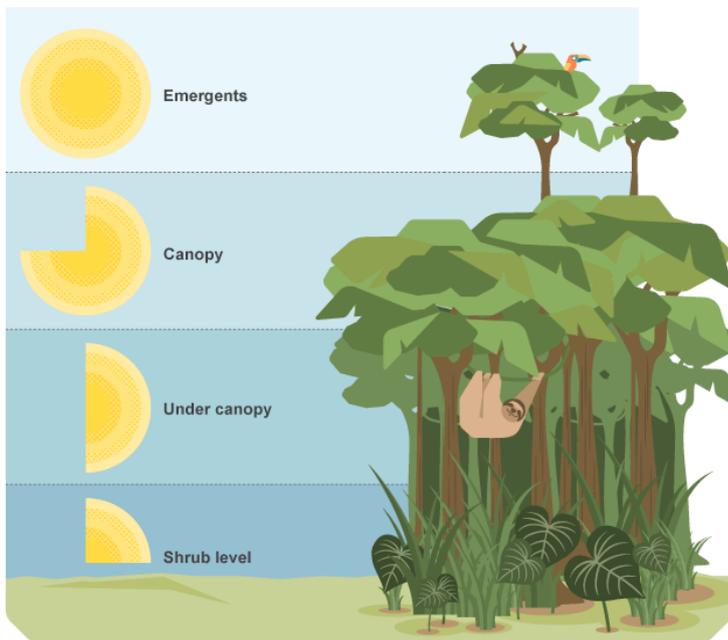
c. _____ (1 mark)

The climate in Indonesia is described as tropical, it is hot and wet. This is perfect conditions for plants to grow. Therefore the natural vegetation of the area is called tropical rainforest. This is a very important but threatened ecosystem. For both geography and biology GCSE you need to know about the tropical rainforest ecosystem. An ecosystem is the way natural bits of the environment are all interlinked.

- 5. The tropical rainforest has developed a particular structure. Use the two videos to make notes to describe what each of these layers is like. **How & why** is each layer different? You might need a larger table if your writing is big!

<https://www.youtube.com/watch?v=UlbplCn8-zs>

<https://www.bbc.co.uk/bitesize/guides/zpmnb9q/revision/1>



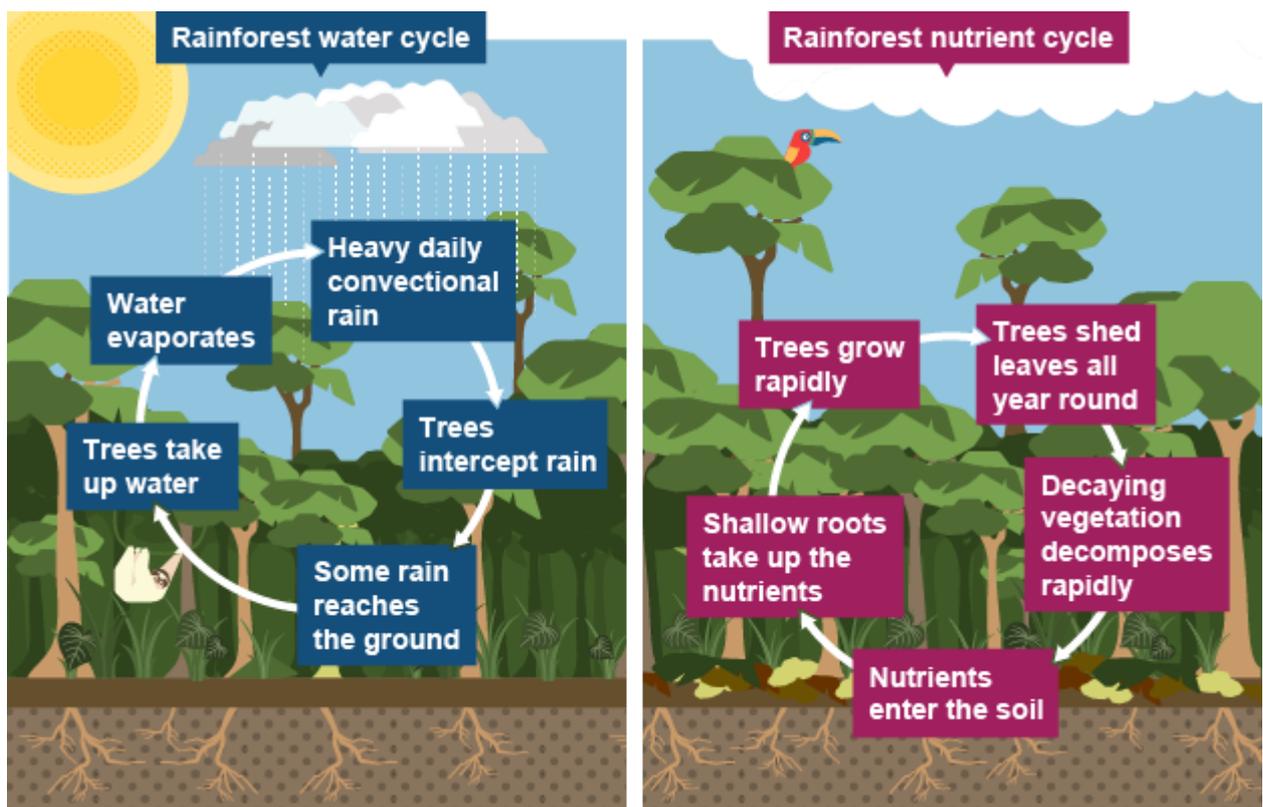
EXTENSION Over time the plants and animals have evolved and adapted to the hot/wet conditions and the dense vegetation. These adaptations make it possible for the plant and animals to survive here. Do some research into the way plants and animals have adapted to the conditions & draw an annotated sketch to describe & explain their adaptations.

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6. In the rainforest are two very important cycles. The water cycle and the nutrient cycle. Nutrients are the things/minerals that plants need to grow. In the natural world nutrients are moved in a cycle so when a plant dies the leaves fall to the ground and rot (decompose). This means the goodness from these goes back into the soil to be used by other plants. Because it's hot in the rainforest this nutrient cycle is very quick, things rot quickly if it's hot (that's why we put things in the fridge or freezer to stop our food from rotting!). Look at these diagrams & answer the questions below.

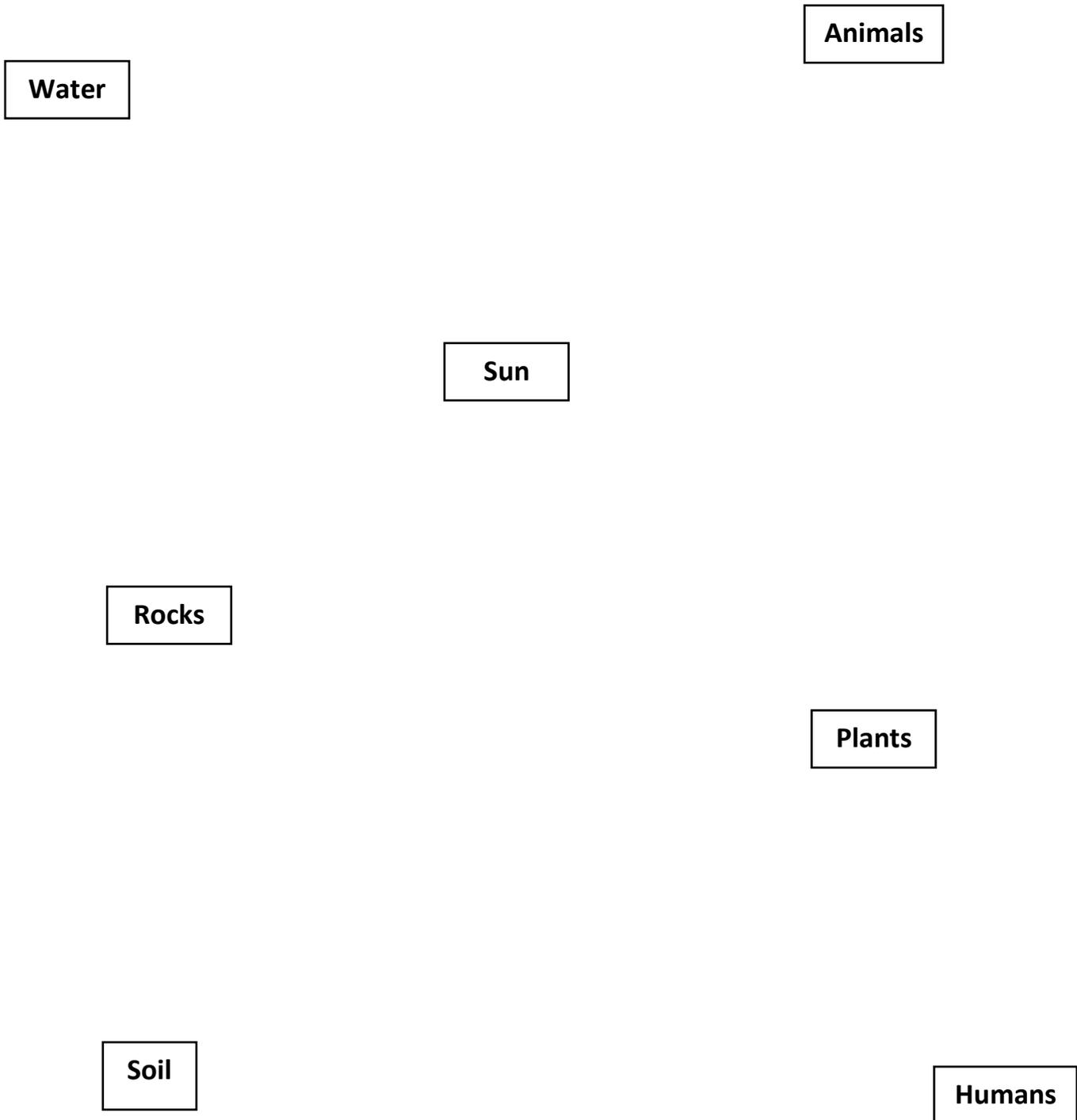
This video might help. <https://www.youtube.com/watch?v=p2c1ZdeTA08>



- What is the type of rainfall called? _____ (1 mark)
- Is it a lot or a little amount of rain? Evidence? _____ (2 marks)
- What happens when rain reaches the trees/canopy? _____ (1 mark)
- Why doesn't all the rain reach the ground? _____ (1 mark)
- How do plants get their nutrient from the ground? _____ (1 mark)
- What happens when leaves fall off the trees? _____ (1 mark)
- How do nutrients get into the soil? _____ (1 mark)
- Why doesn't the ground run out of new nutrients? _____ (2 marks)
- How are animals' part of the nutrient cycle? _____ (2 marks)
- Why do geographers/biologists call these cycles? _____ (1 mark)

30 MINUTES

7. The next task is summarise and develop your understanding of the tropical rainforest ecosystem. Below are all the different bits or components of an ecosystem. Draw lines and write a comment to say how each bit is linked to the other bits. See if you can get 25 links!



8. Look at your concept map & the work you did about the water and nutrient cycles in the rainforest. Explain what would happen if the trees were cut down. PEEC

(4 marks)

9. Watch the documentary Red Ape- saving the orang-utan & answer these questions. You need to watch from 32 minute to the end.

<https://www.dailymotion.com/video/x6wbo2w>

a) Why have the number of palm oil plantations increased?

(3 marks)

b) What are the impacts of deforestation on orang-utans & other wildlife?

(3 marks)

c) What's wrong with a monocultures?

(3 marks)

d) How does deforestation contribute to climate change?

(3 marks)

e) Is the palm oil industry sustainable? _____ (1 mark)

f) What possible solutions are there?

(3 marks)

EXTENSION (but really interesting) Watch this video clip about a tribe of people called the Penan who are the indigenous (native) people who live in the areas of Borneo where deforestation is taking place.

https://www.youtube.com/watch?v=f21BpLL_S_g

a) What problems does modern development of the rainforest cause the people who live there?

b) What do you think these people would like to happen in the area?

Getting Active Extras

1. One tribe of native/indigenous people who live in the tropical rainforest in SE Asia are called the Penan. Watch this video about them.
 - a. <https://www.youtube.com/watch?v=0MeYMvtshsM>
 - b. Make yourself a Penan style sign to communicate an important message for you. Take a photo or make a quick film & say what it shows.
2. Use this list of animal characteristics to create an animal perfectly adapted to living in the rainforest. You can use some or all of these characteristics. Draw a labelled picture to explain your ideas.

Green	Herbivore	Prehensile tail	Long tongue
Brown	Carnivore	Opposable grip	Can swim
Camouflaged	Omnivore	Claws for digging	Can fly
Bright colour to scare off predators	Good sense of smell	Fast runner	Large eyes good night vision
Skin like a snake	Covered in fur	Claws for climbing	Can stand on two legs

3. Have a look in your food cupboard & fridge.
 - a. List anything with palm oil in it.
 - b. Have a discussion at home to see if you could live without it or buy alternatives.