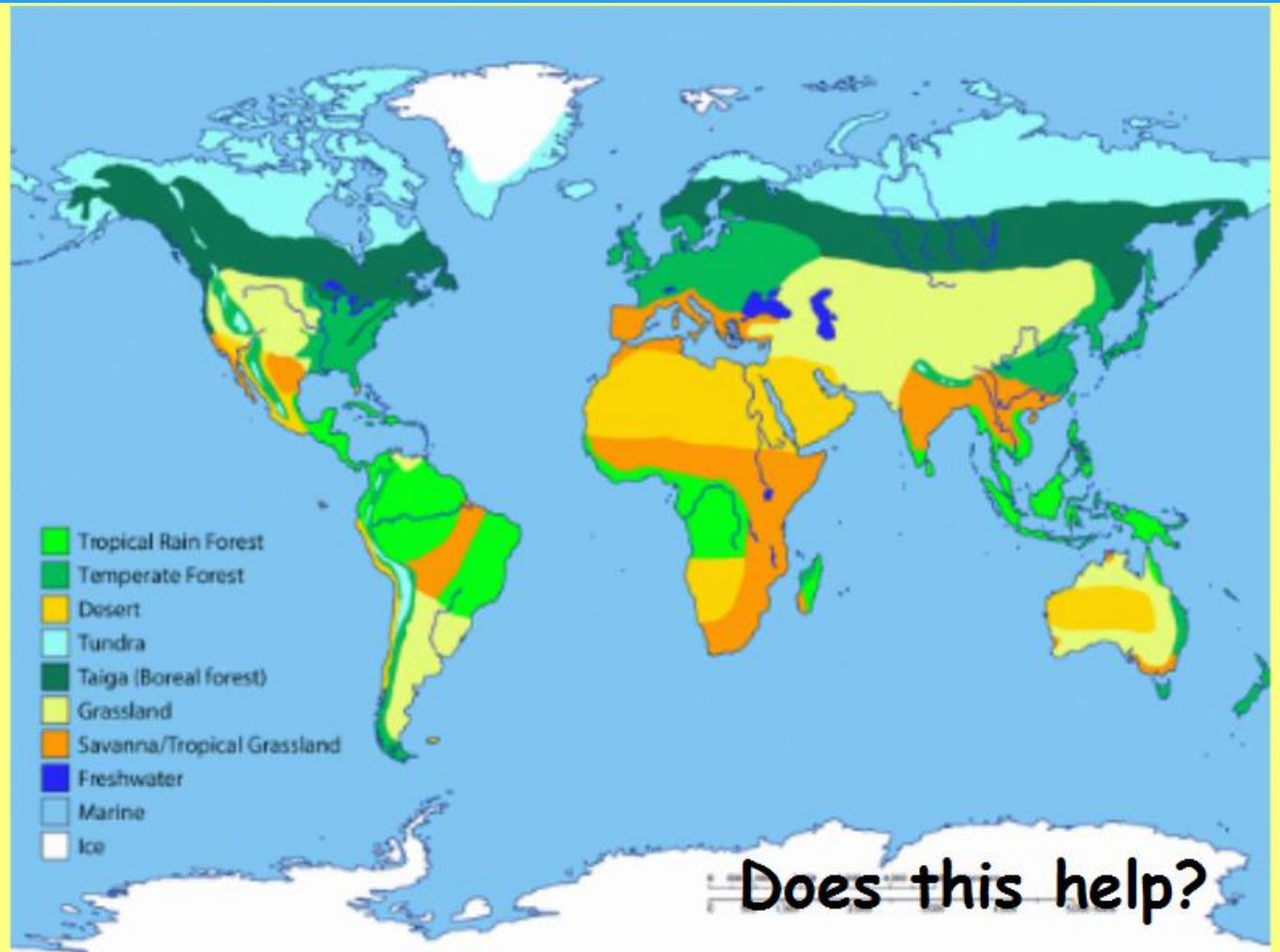


Wednesday 3rd March 2021

L.O. Explaining Biomes and the rainforest as a habitat.



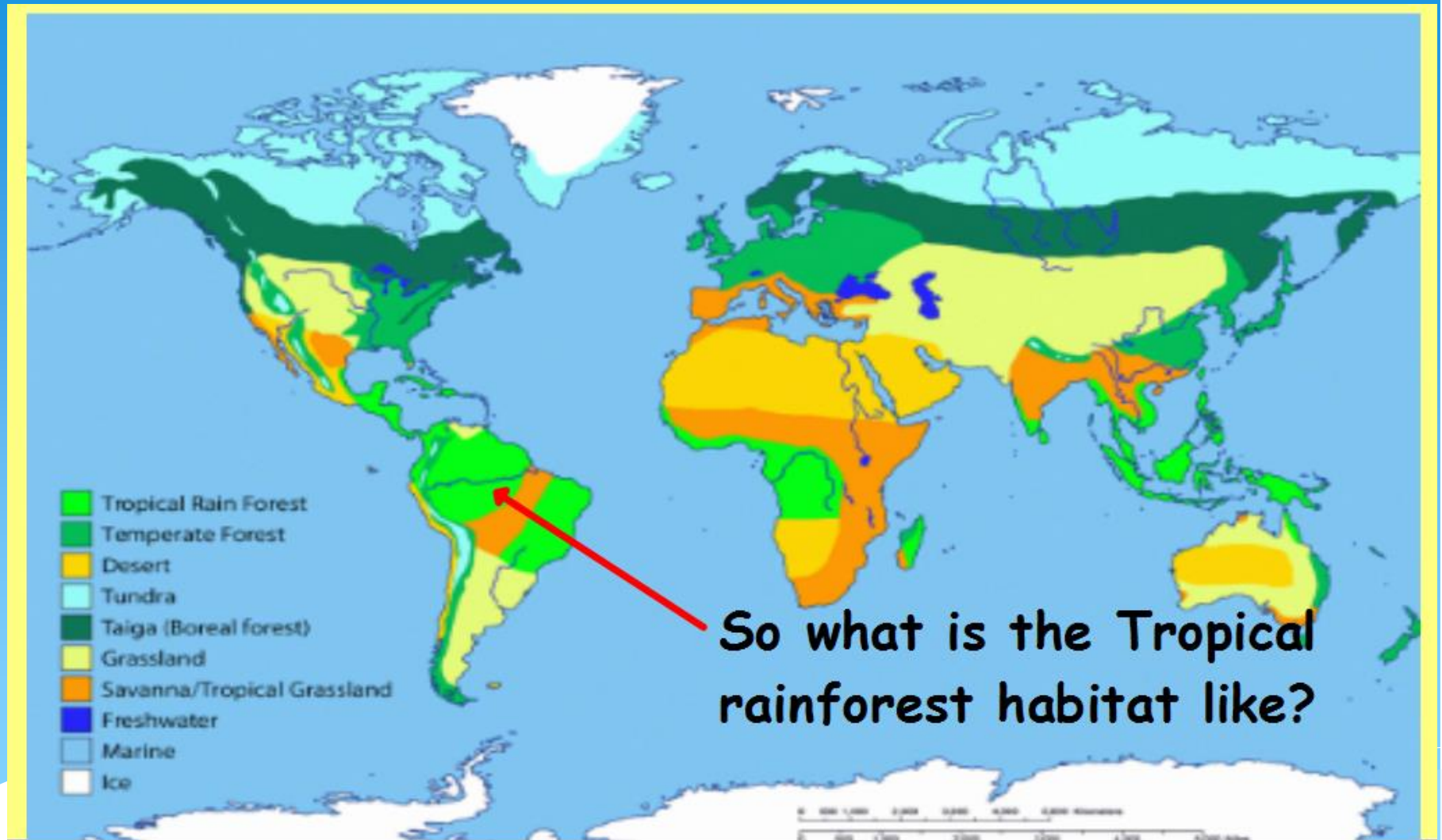
What is a  
Biome?



# BIOME

A biome is the main ecological regions into which the land surface can be divided. Each has its own characteristic seasons, day length, rainfall pattern and maximum and minimum temperatures. The major biomes are **tundra, coniferous forest, deciduous forest, tropical forest, temperate grassland, savanna** and **desert**. Most are named after the dominant vegetation, since this determines all other living things found there. Each biome is a giant **habitat**.





**So what is the Tropical  
rainforest habitat like?**

What do you think the climate is like in the Amazon Rainforest?

Let's investigate using a climate graph.



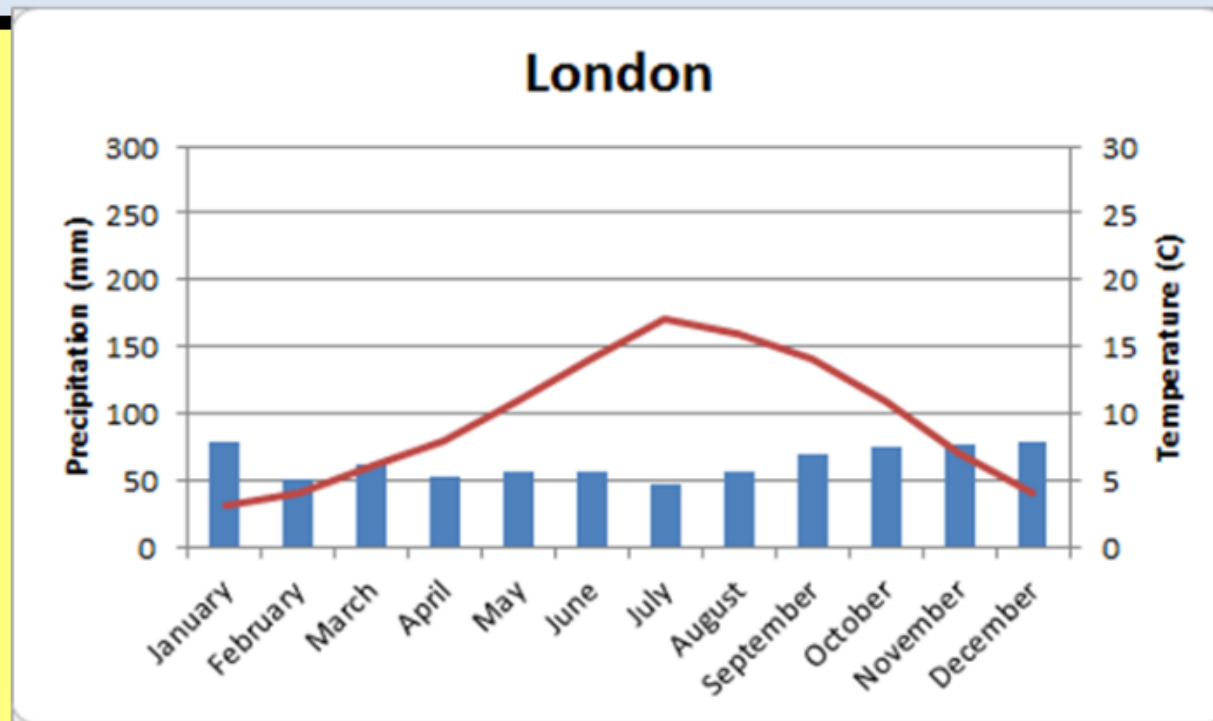
## Let's remind ourselves how a climate map works!

This is a climate graph. It shows the average temperature and the average rainfall for a place.

It gives the average for each month of the year.

The red line is the temperature.

The blue bars show the rainfall.



This time I would like you to produce a climate graph for Manaus on the River Amazon and Clitheroe on the River Ribble. Once you have drawn them can you comment on the differences between the two places and any similarities.

## MANAUS WEATHER BY MONTH // WEATHER AVERAGES

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	26 °C (78.9) °F	25.8 °C (78.5) °F	25.9 °C (78.6) °F	25.8 °C (78.5) °F	25.8 °C (78.4) °F	25.9 °C (78.6) °F	26.1 °C (79) °F	27.1 °C (80.7) °F	27.5 °C (81.4) °F	27.6 °C (81.7) °F	27.2 °C (80.9) °F	26.4 °C (79.6) °F
Min. Temperature °C (°F)	24 °C (75.2) °F	23.9 °C (75) °F	23.9 °C (75) °F	23.9 °C (75) °F	23.8 °C (74.8) °F	23.5 °C (74.4) °F	23.5 °C (74.3) °F	24.1 °C (75.4) °F	24.5 °C (76.1) °F	24.8 °C (76.7) °F	24.8 °C (76.6) °F	24.3 °C (75.8) °F
Max. Temperature °C (°F)	29.1 °C (84.5) °F	28.9 °C (84) °F	29 °C (84.3) °F	28.9 °C (84) °F	28.8 °C (83.8) °F	29 °C (84.2) °F	29.5 °C (85.1) °F	30.9 °C (87.6) °F	31.3 °C (88.3) °F	31.3 °C (88.3) °F	30.6 °C (87.2) °F	29.5 °C (85.2) °F
Precipitation / Rainfall	322	331	395	385	334	200	133	114	133	159	193	302
mm (in)	(12.7)	(13)	(15.6)	(15.2)	(13.1)	(7.9)	(5.2)	(4.5)	(5.2)	(6.3)	(7.6)	(11.9)
Humidity(%)	87%	87%	88%	88%	89%	87%	85%	81%	80%	80%	83%	86%
Rainy days (d)	20	18	21	20	21	17	15	13	14	15	17	20

# CLITHEROE WEATHER BY MONTH // WEATHER AVERAGES

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	3.4 °C (38.1) °F	3.4 °C (38.1) °F	4.8 °C (40.6) °F	7.2 °C (45) °F	10.3 °C (50.5) °F	13 °C (55.4) °F	14.8 °C (58.6) °F	14.4 °C (57.9) °F	12.5 °C (54.6) °F	9.6 °C (49.3) °F	6.1 °C (43) °F	3.8 °C (38.9) °F
Min. Temperature °C (°F)	1.1 °C (34.1) °F	0.8 °C (33.4) °F	1.5 °C (34.8) °F	3.4 °C (38.1) °F	6.5 °C (43.7) °F	9.4 °C (48.9) °F	11.4 °C (52.4) °F	11.3 °C (52.3) °F	9.4 °C (49) °F	7 °C (44.6) °F	3.8 °C (38.8) °F	1.5 °C (34.8) °F
Max. Temperature °C (°F)	5.5 °C (41.9) °F	6 °C (42.9) °F	8 °C (46.3) °F	10.8 °C (51.5) °F	13.7 °C (56.7) °F	16.2 °C (61.1) °F	17.8 °C (64.1) °F	17.2 °C (63) °F	15.4 °C (59.8) °F	12.1 °C (53.8) °F	8.2 °C (46.8) °F	5.9 °C (42.7) °F
Precipitation / Rainfall	112	94	89	82	87	97	105	112	98	114	112	124
mm (in)	(4.4)	(3.7)	(3.5)	(3.2)	(3.4)	(3.8)	(4.1)	(4.4)	(3.9)	(4.5)	(4.4)	(4.9)
Humidity(%)	90%	86%	83%	79%	78%	80%	80%	83%	84%	87%	89%	89%
Rainy days (d)	13	11	10	11	11	11	12	13	11	11	12	12



**The rainforest has four different layers.**

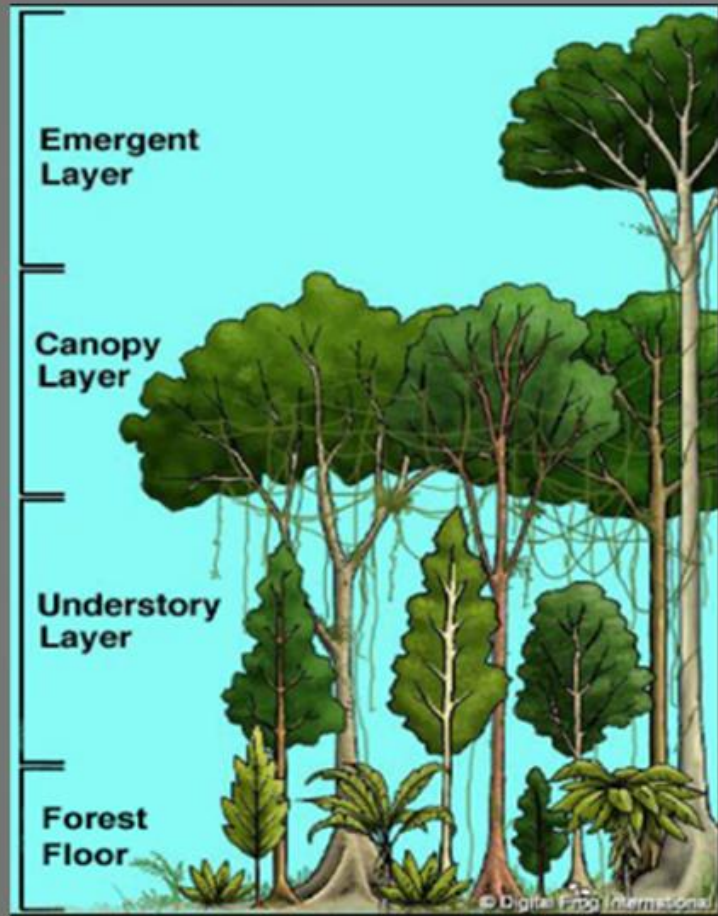


Emergent Layer

Canopy Layer

Understory Layer

Forest floor



Very windy with the tallest trees.

Trees here have lots of leaves. It forms a roof over the rest of the forest and gets lots of rain and sunlight.

Not much light reaches this layer, it is dark, hot and humid. There are lots of plants and vines reaching no more than 3m tall.

Dark with very few plants.



Mrs Sheppard is 165cm tall (5ft 5").

The tallest trees in the Amazon are 61m (200ft) tall - that is the same as 37 Mrs Sheppards standing on top of each other!!!

Now that is a scary thought. 37 Mrs Sheppards.



# The Amazon is home to over 10% of the world's species

approximately 2.5 million different insects!



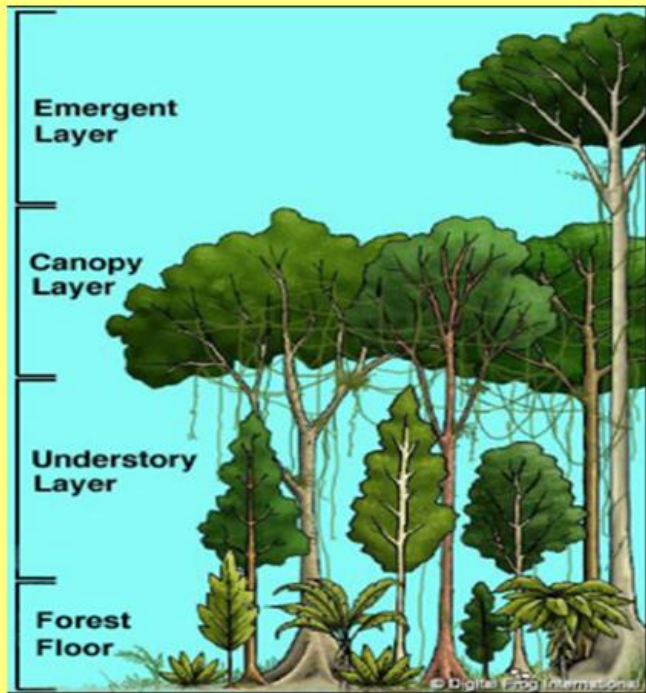
over 1500 different species of bird!



Over 40,000 different species of plant!



Using the information we know about the rainforest, can you decide which layer these creatures would live in?



**Clue:** Wings for flying or gliding, or very quick climbers.

**Clue:** Long arms for swinging, claws for climbing and clinging to trees.

**Clue:** Mainly animals who try to hide away from predators in the flowers and plants (need to be able to climb).

**Clue:** Camouflaged by the soil and tree trunks. Not very good at climbing.

### Animals on each layer

**Emergent** – Here you will find bats, butterflies, monkey's and eagles living in the huge trees. Some leaves are up to 7m long!

**Canopy** – this is a very thick layer offering lots of shelter and food. Monkey's, orangutans, brightly coloured birds, tree frogs and snakes live happily here and never need to leave.

**Understory** – here you will find brightly coloured plants which don't need much sunlight. Jaguars, leopards, spiders and snakes live in this layer.

**Forest floor** – the smallest animals live here. You will find centipedes, beetles, scorpions, cockroaches and slugs. There are also crocodiles and okapi.

60

rain

understory

animals

canopy

The highest layer of the rainforest is the \_\_\_\_\_ layer. Trees here can reach \_\_\_\_\_ m high and need to be very tough. To cope with the wind and \_\_\_\_\_.

Next is the \_\_\_\_\_ layer where most of the \_\_\_\_\_ live.

Next is the \_\_\_\_\_. Trees here only grow to \_\_\_\_\_ m high as there is not much sunlight.

At the very bottom is the \_\_\_\_\_, where it is very \_\_\_\_\_ and not much grows.

dark

10

Forest floor

emergent