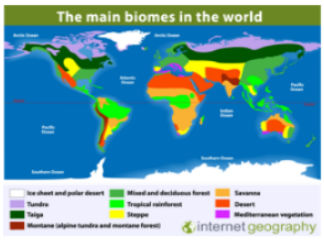
1) Glue in on the next clean page.

Geography

Autumn 2

How will melting sea-ice affect the world's biomes?





2) Then on the next clean page (after that) write the date and LO.

LO: to explain the difference between weather and climate.

Our key question for our geography unit is:

How will melting sea-ice affect the world's biomes?

What do you already know?



Read through your Knowledge Organiser to find out what we will be learning.

Key Learning

Year: 6 Term : Autumn 2

Questions : What is the impact of melting sea ice on the world's biomes?

Curriculum Area : Geography

Background information including prior knowledge):

- Hot and cold regions on the globe.
- Knowledge of some of the key processes; e.g. formation of mountains.
- Knowledge of weather and weather patterns in the UK.
- Some knowledge of climate change.

Key Content:

- Can talk about climate and how it is the weather over a long period of time.
- Can talk about how the climate varies and reasons why.
- Can explain that there are different vegetation belts in different parts of the world.
- Can explain that a vegetation belt is the plant life as a whole within a certain area and that they have distinct types of plants, soil, and weather patterns.
- Can describe different types of biomes and give examples.

Key Questions/ Big 6 facts

What is the difference between climate and weather? Why is this important?

How does a location's distance from the sun impact o weather and climate?

What are the world's biomes?

What are the key differences between the Antarctic and the Arctic?

Sea ice and rising sea levels.

How will melting sea-ice affect the worlds biomes?

Key Vocabulary

climate	The weather conditions prevailing in an area in general or over a long period.
climate zone	Any of the geographical zones loosely distilled according to prevail-
vegetation	Plants considered collectively, especially those found in a particular
belt/biome	A biome is a large area characterized by its vegetation, soil, climate,
tropical rain-forests	The tropical rainforest is a hot, moist biome where it rains all year long. It is known for its dense canopies of vegetation that form three different layers.
desert	A desert is a region of land that is very dry because it receives low amounts of precipitation (usually in the form of rain, but it may be snow, mist or fog), often has little coverage by plants, and in which streams dry up unless they are supplied by water from outside the
savanna	A grassy plain in tropical and subtropical regions, with few trees.
woodland	Land covered with trees.
temperate	Relating to or denoting a region or climate characterized by mild tem-
forests	A large area covered chiefly with trees and undergrowth.
tundra	A vast, flat, treeless Arctic region of Europe, Asia, and North America



What is weather? What is climate?

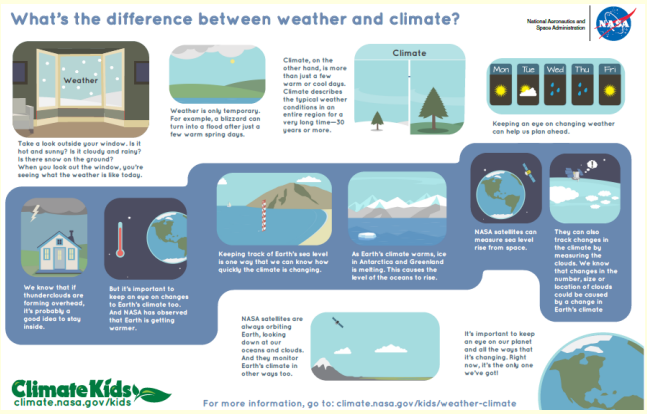
How are they different?

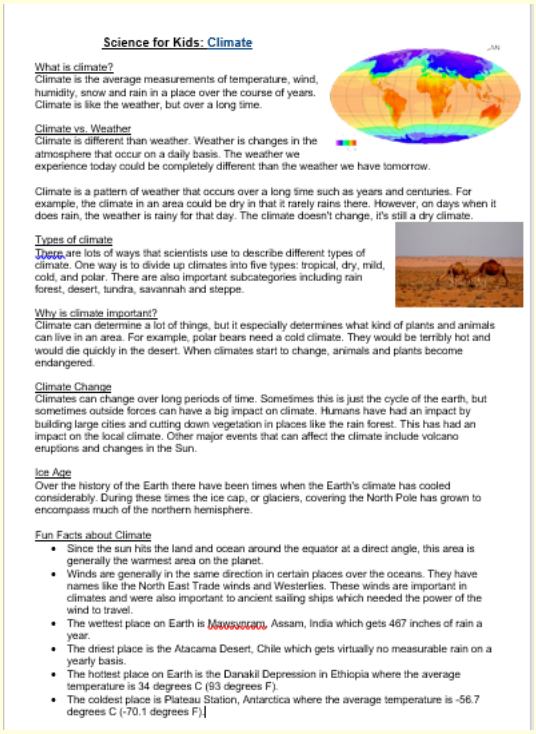




Read the text with your partner.

Remember to take it in turns to read one sentence each.





Science for Kids: Climate

What is climate?
Climate is the average measurements of temperature, wind, humidity, snow and rain in a place over the course of years. Climate is like the weather, but over a long time.

Climate vs. Weather
Climate is different than weather. Weather is changes in the atmosphere that occur on a daily basis. The weather we experience today could be completely different than the weather we have tomorrow.

Climate is a pattern of weather that occurs over a long time such as years and centuries. For example, the climate in an area could be dry in that it rarely rains there. However, on days when it does rain, the weather is rainy for that day. The climate doesn't change, it's still a dry climate.

Types of climate
There are lots of ways that scientists use to describe different types of climate. One way is to divide up climates into five types: tropical, dry, mild, cold, and polar. There are also important subcategories including rain forest, desert, tundra, savannah and steppe.

Why is climate important?
Climate can determine a lot of things, but it especially determines what kind of plants and animals can live in an area. For example, polar bears need a cold climate. They would be terribly hot and would die quickly in the desert. When climates start to change, animals and plants become endangered.

Climate Change
Climates can change over long periods of time. Sometimes this is just the cycle of the earth, but sometimes outside forces can have a big impact on climate. Humans have had an impact by building large cities and cutting down vegetation in places like the rain forest. This has had an impact on the local climate. Other major events that can affect the climate include volcano eruptions and changes in the Sun.

Ice Age
Over the history of the Earth there have been times when the Earth's climate has cooled considerably. During these times the ice cap, or glaciers, covering the North Pole has grown to encompass much of the northern hemisphere.

Fun Facts about Climate

- Since the sun hits the land and ocean around the equator at a direct angle, this area is generally the warmest area on the planet.
- Winds are generally in the same direction in certain places over the oceans. They have names like the North East Trade winds and Westerlies. These winds are important in climates and were also important to ancient sailing ships which needed the power of the wind to travel.
- The wettest place on Earth is Mawsynram, Assam, India which gets 467 inches of rain a year.
- The driest place is the Atacama Desert, Chile which gets virtually no measurable rain on a yearly basis.
- The hottest place on Earth is the Danakil Depression in Ethiopia where the average temperature is 34 degrees C (93 degrees F).
- The coldest place is Plateau Station, Antarctica where the average temperature is -56.7 degrees C (-70.1 degrees F).

I do

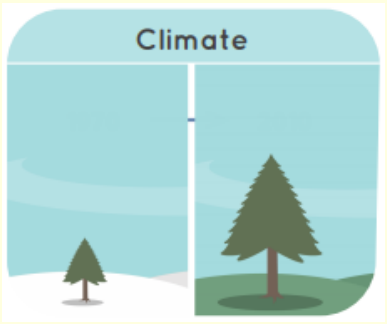
What is weather?

Weather is .....



What is climate?

Climate is.....



we do

What is the difference between weather and climate?

Climate is what we expect; weather is what we get!

you do

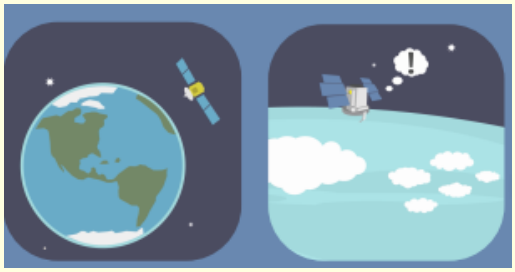
What are the types of climate?

Why is climate important?

we do

What can affect the climate?

How do NASA satellites track changes in the climate?



we do

https://www.youtube.com/watch?v=6Aigcv7UnTU

https://www.youtube.com/watch?v=YbAWny7FV3w

https://www.generationgenius.com/videolessons/weather-vs-climate-video-for-kids/

Watch the video to find out more about weather and climate.

Note down any NEW INFORMATION you find out.



Discuss with your partner what you have found out.

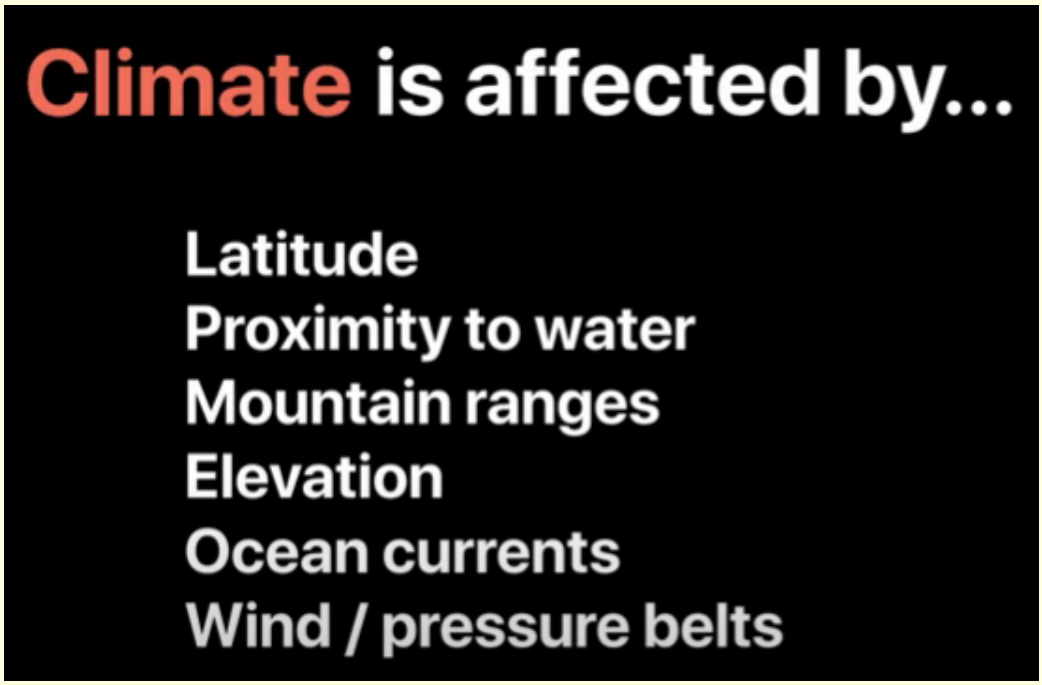
Complete the sentence:

we do



Complete the sentence:

we do



Create an information page to explain the difference between weather and climate.

I do

Make sure you answer:

*What is weather? What factors is it affected by?

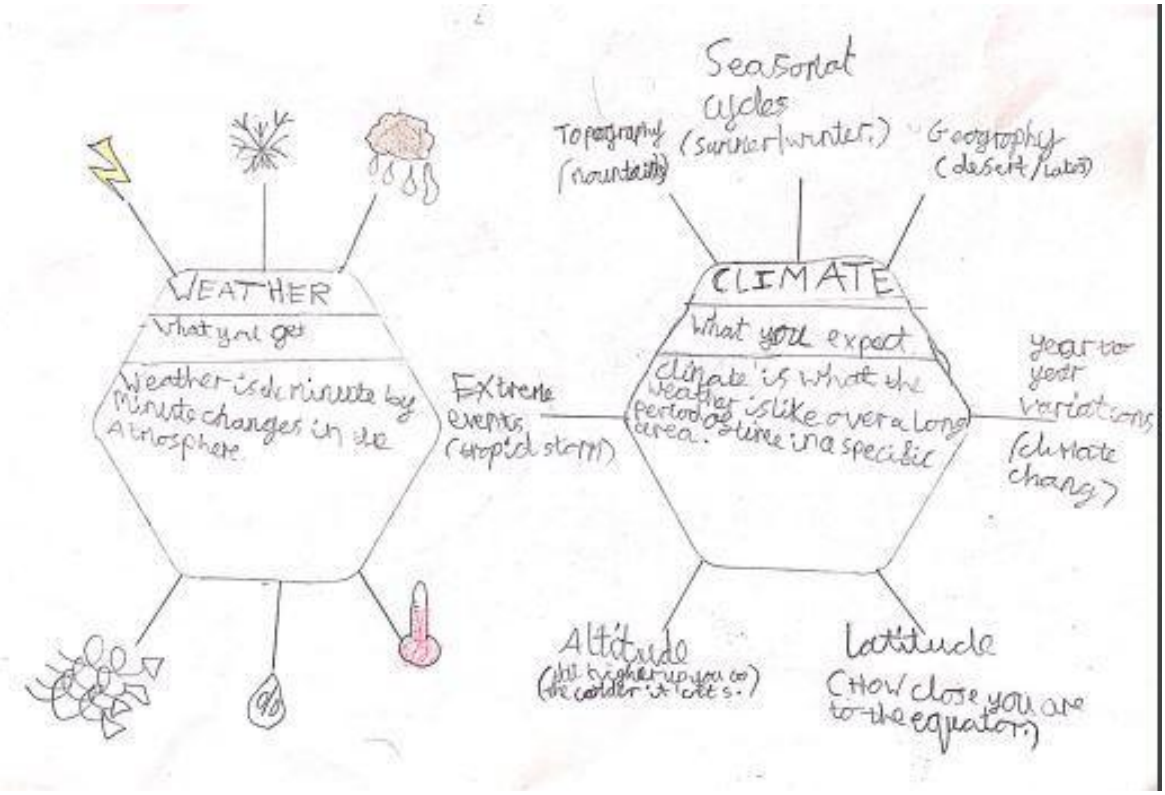
*What is climate? What factors is it affected by?

*What is the difference between weather and climate?

*Why is climate important?

*Why can climate change? What is the impact of this on the planet?

*How is climate change monitored?


WEATHER
What you get
Weather is determined by minute changes in the Atmosphere
CLIMATE
What you expect
Climate is what the weather is like over a long period of time in a specific area.
Seasonal cycles
Topography (mountains)
(summer/winter)
Geography (desert/lake)
Extreme events (tropical storm)
Year to year variations (climate change)
Altitude (the higher up you go the colder it gets.)
Latitude (How close you are to the equator)

you do

Create an information page to explain the difference between weather and climate.

Make sure you answer:

*What is weather? What factors is it affected by?

*What is climate? What factors is it affected by?

*What is the difference between weather and climate?

*Why is climate important?

*Why can climate change? What is the impact of this on the planet?

*How is climate change monitored?