

# Extreme environments (year 7) knowledge organiser

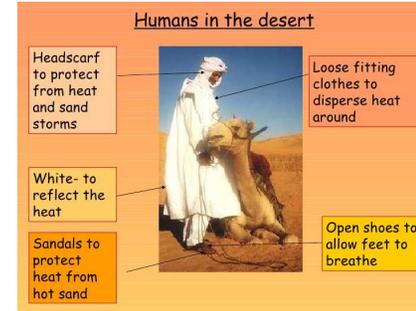
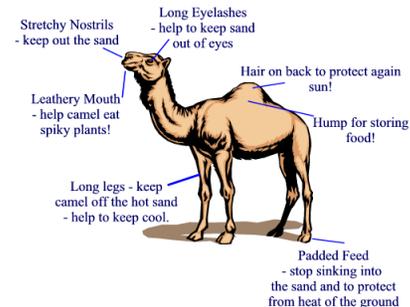
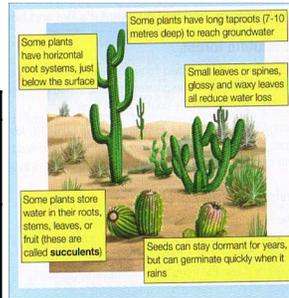
Week 1 - What is an extreme environment? An environment which is hard for plants, animals and humans to survive in.

Environment	Climate	Location
Arid (desert)	Low rainfall, little or no vegetation due to lack of water. Cloudless skies associated with anticyclones.	Saharan Desert, Arabian Desert
Tropical	Located around the equator. Hot, humid weather (daytime max. temp 30-35°C). Convection produces daily rainstorms. Little seasonal difference. Further away from the equator a wet season and a dry season occur.	Amazon Basin, Brazil; the Congo Basin, W. Africa and Indonesia
Temperate	Temperate climates are maritime or continental. Maritime climates are strongly affected by the oceans with a fairly steady temperature across the seasons, whilst continental climates are more inland with warmer summers and colder winters.	UK (maritime), central Europe (continental)

Week 2 - Learn the answers to the questions below:

Questions:	Answers:
What is the largest hot desert in the world?	The Sahara Desert, North Africa, about 3.5 million square miles, located in 9 countries
How much rainfall must there be in a hot desert?	Under 250 mm/year
Name the 11 countries that the Sahara Desert is found in	Algeria, Chad, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Western Sahara, Sudan and Tunisia
What is meant by the term biodiversity?	Plants and animals found in an ecosystem
What is meant by the term adaptation?	How living things change their way to survive in a harsh environment
Name 5 plants and animals that live in a hot desert	Cactus, Acacia Tree, camel, Mojave Desert snake, Jackrabbits

Week 3 - How have people, plants and animals adapted to live in a hot desert in order to survive?



Week 4 - what is the polar biome?

Definition: Biome is a large scale ecosystem with the same climate, animals, plants and soils

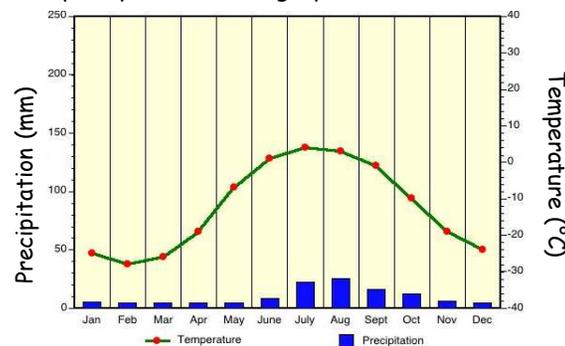
What are the characteristics of the polar biome?	1. Long cold winters
	2. Annual temperatures mostly below freezing.
	3. Polar areas are often windy, with very little precipitation.
	4. Plants - hundreds of species of moss, algae and lichen

Week 5 - Climate graph of a Polar biome

Key definitions:

- **Precipitation** - rain, snow, sleet, or hail that falls to or condenses on the ground.

- **Climate graph** - a graph to show the precipitation and temperature of a place throughout the year (temperature = line graph and precipitation = bar graph)



What is the peak precipitation?	August (25mm)
What is the peak temperature?	July 4°C
What is the lowest precipitation?	Feb, Mar, Apr, May, Dec (5mm)
What is the lowest temperature?	Feb -28°C
What is the total precipitation?	135mm per year
What is the mean precipitation?	135 / 12 = 11.25mm/month
What is the temperature range?	4°C minus -28°C = temperature range of 32°C