

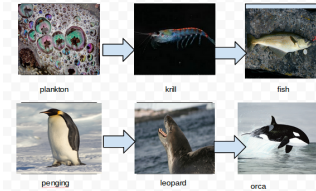
Weather	The day to day conditions of the atmosphere
Climate	The average weather conditions taken over a number of years.
The UK's Climate	The UK has a Temperate climate. This means it is mild all year with a chance of rain any time of year.
Factors affecting UK Weather	Explanations as to how the UK climate is affected
Wind direction	The UK's prevailing (dominant) wind direction is from the West/South West, coming over the Atlantic.
Types of rainfall (Frontal & Relief)	Frontal rainfall: Warm and cold air do not mix, warm air is forced to rise, it cools, condenses and then forms clouds & rainfall. Relief rainfall: Air is forced to rise over mountains, as it rises it cools and condenses.
The tilt of the earth	The earth is tilted 23.5° on its axis. We are tilted towards the sun in summer and away from the sun in winter.
Altitude	There is a 1° drop in temperature for every 100m rise in height.
Latitude	Temperatures drop the further you are from the equator due to the curvature of the earth.
Distance from the sea	Oceans heat up and cool down much more slowly than land. Coastal locations tend to be cooler in summer and warmer in winter.
Tropical Climates:	
Tropical Climates	These are found around the Equator, between the Tropics of Capricorn and Cancer (tropical rainforests).
On average 27°C all year round	Rainforests are located in the tropics on and near the equator. They receive 12 hours of sunlight daily all year round.
2000mm of rainfall per year	Convictional rainfall occurs frequently. The sun heats the ground, the warm air rises, cools, condenses to form heavy clouds and thunderstorms.

How vegetation is adapted to tropical climates:	
Buttress roots	They can grow up to 15m high. They prop up the emergent trees to stop them from falling due to their weight.
Drip tip leaves	These leaves are thick and waxy. The shape channels water away from the leaf to stop it snapping and dying.
Pitcher plants	Are carnivorous. They have sweet tasting nectar to attract insects and small mammals. It has water in the bottom and the insects drown and then are digested.
Animal adaptations to tropical climates and rainforests:	
Tree frog	These are found around the Equator, between the Tropics of Capricorn and Cancer (tropical rainforests).
	Green so camouflages into the canopy.
Flying Lemur	Flaps of skin attached to arms and legs to enable it to glide from branch to branch.
	They are nocturnal which allows greater protection from predators.
Capuchin Monkey Capuchin Monkey	They have tails as long as their bodies (up to 50cm) which enable them to balance and climb with ease.
	They are omnivores live in the canopy along with 50% of other species meaning they have a plentiful food supply.
Human uses of Tropical Rainforests:	
Logging	The cutting down of trees for timber
Hydro-Electric Power	HEP is the generation of electricity from water often involving huge reservoirs and dams
Mineral Mining	The extraction (removal) of natural resources such as gold and aluminium
Road building	Building roads for transport e.g. The Trans-Amazonian Highway
Agriculture	Farming such as soya beans and palm oil
Cattle ranching	The farming of cattle for beef.
Tribal homelands	The Kayapo tribe live along the Xingu river in the Amazon rainforest. There are over 8,000 of them but tend to live in small villages of about a dozen (12) huts.

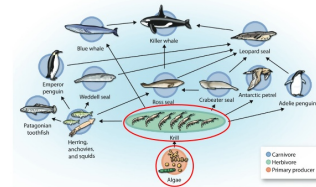
The advantages (positives) and disadvantages (negatives) of using the rainforest:	
Positive	Agriculture employs 15% of people in Brazil
Positive	Massive economic earner: \$1.5 billion from beef sales and \$1 billion from leather
Positive	Belo Monte Dam HEP projected to cost \$18.5billion but will save \$19 billion per year in electricity costs
Positive	Gold is a very expensive mineral, which can earn miners between \$20-\$30 per gram!
Negative	Land must be cleared (often by slash & burn) every 2 years due to the poor quality of the soil
Negative	Clearance of land reduces habitat space leading to species endangerment & extinction
Negative	Often mining is open cast (just digging a big hole in the ground) this leaves a massive scar on the landscape and nothing is able to grow.
Negative	Often poisonous chemicals like cyanide are used to mine. This is toxic to people, plants & animals.
Using the rainforest sustainably:	
Sustainable	Long lasting, doesn't damage the environment and benefits local people
Sustainable tourism	Use locally sourced materials (perhaps already confiscated deforested trees)
	Limit developments to a small size
	Use materials that blend in with surroundings
	Teach conservation and stewardship to visitors
	And employ locals

What is a fragile environment?	A fragile environment is something that is a delicate and precious part of our world. An environment can be built or natural. A built environment is an environment that has been created by humans. Parks, buildings, roads, schools and houses are all a part of built environments.		
Antarctica	Is the world's 5th largest continent, located in the southern hemisphere. It is a cold desert receiving less than 200mm of precipitation per year. It has no permanent residents.		
Antarctic Treaty, 1959	Main points of the Treaty include: Freedom of science No military activity (including nuclear testing) No fixed population		
Stakeholder	A group or individual who has a vested interest in someone or something. Examples include: environmentalists, scientists, tourism companies, mining companies.		
Fragile environments Africa	Desert	Tropical rainforest	The Savannah
	In this climatic zone there is more evaporation than precipitation. Some parts of this area only receive as little as 0.83mm per year! The temperatures can reach up to 58°!	This climate has 180mm of rainfall every month! The temperature remains consistently warm all year round.	This climate zone has monthly mean temperatures of 18° and has a wet season and a dry season. They tend to have grasslands as opposed to jungle.
Endangered species in fragile environments	Reasons for animal endangerment: Poaching Population growth Demand for ivory Poverty Palm oil Habitat loss	Bonobo monkeys can only be found south of the Congo River in the Democratic Republic of Congo (DRC). They are killed due to the destruction of their habitats. They spend more time in trees than any other monkey species and build their nest there.	Elephants are the largest living land mammal in the world. They usually travel in groups. They are poached for their tusks, meat and skin. They live in the savannah region.

Antarctic food chain



Antarctic Food Webs



The Sahel

Physical / natural	The region has abundant wildlife including: gazelle, cheetah, African wild dogs, lions & giraffe
	The climate is typically hot, sunny, dry and somewhat windy all year long. It can reach up to 42°C.
	The Sahel receives a low and unreliable amount of precipitation annually. The entire Sahel region generally receives between 100 mm and 600 mm of rain yearly. Droughts are frequent.
Human	Traditionally, most of the people in the Sahel have been semi-nomads, farming and raising livestock in a system of transhumance (moving livestock from one grazing ground to another), which is a very sustainable way of utilizing the Sahel.

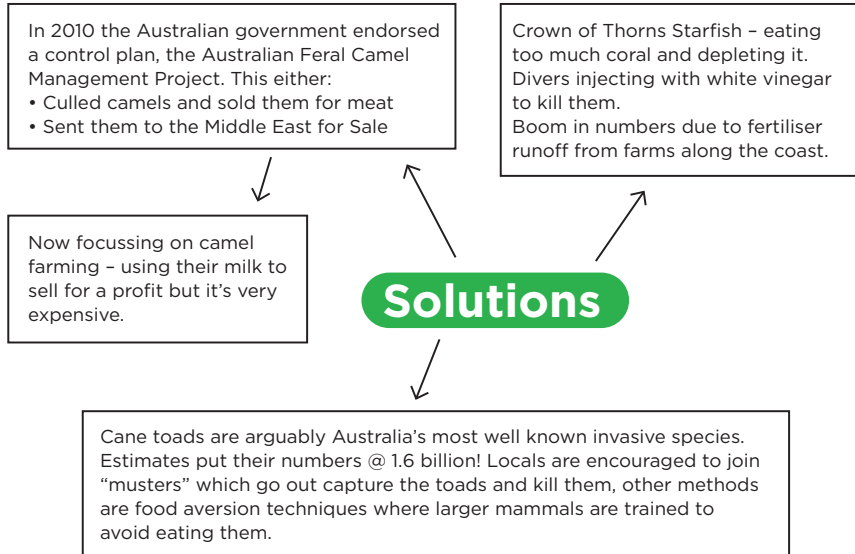


56 Species have been introduced to Australia!

Location	Essential Knowledge
The Outback	Climate change and drought are having a significant impact in the region Agriculture is over abstracting water exacerbating the problem Average temperature = 35°C Average PPT = 150mm per year Flora (plants) = Stuart's Desert Pea, Kangaroo Paws Fauna (animals) : kangaroo, salt-water crocodile & dingo
The Daintree Tropical Rainforest	Deforestation for farms and private residences are the main threat. Feral animals and invasive species are putting native species at risk. Average temperature = 26°C Average precipitation = 2,000mm Flora (plants) : Many of the plants are poisonous like the idiot fruit Fauna (animals) : estuarine Crocodile and musk rat
Uluru	Tourism on a large scale, climbing the rock, polluting the local water supplies and erosion are the main environmental problems. Average temperature = 35°C Average precipitation = 308mm annually Flora (plants) : there are over 416 species of native plants in Uluru-Kata Tjuta National Park alone. Fauna (animals) : spinifex hopping mouse, wallaby, red kangaroo.
The Great Barrier Reef	Climate change causing the bleaching of coral, water pollution runoff and over fishing are the main threats here. • Average temperature = 24-33° in summer and 14-26° in the winter • Average precipitation = 2010 mm • Flora (plants) : seaweeds and grasses • Fauna (animals) : dolphins, sharks, including 1400 coral reef species

Invasive	Feral	Pests
Species has a tendency to spread their range into new areas or plague their range	Defined as animals for domestic purposes (i.e. pets, recreational use – such as hunting – or beasts of burden) which have gone wild.	Animals which have a direct effect on human standard of living or the environment/ecosystems in areas where they are present, have a high rate of reproduction and are difficult to control
Cane toad – over 200 million in Northern Queensland alone. Kill native species with their bufotoxin.	Camels – introduced to help farm in the Outback and some escaped.	Rabbits – estimated 200 million living in Australia!

Climate	The long term weather conditions over a period of time. Temperatures and precipitation levels are a large part of this.
Flora	Vegetation
Fauna	Wildlife
Adaptation	How animals are modified/enhanced to ensure the survival of their species.



(4) Que fais-tu quand tu es connecté(e)?

(what do you do when you're online?)

j'envoie des e-mails	I send emails
je fais des recherches	I do research
...pour mes devoirs	...for my homework
je fais des achats	I do shopping
je fais des quiz	I do quizzes
je lis des blogs	I read blogs
je joue à des jeux	I play games
...en ligne	...online

Je trouve ça...	I find it...
chouette	great
pratique	practical
stupide	stupid

souvent	often
d'habitude	usually
quelquefois	sometimes
tous les jours	every day
une fois par semaine	once a week

faire - to do/to make (present tense)			
Singular		Plural	
je fais	I do	nous faisons	we do
tu fais	you do	vous faites	you do
il fait	he does	ils font	they do
elle fait	she does	elles font	they do
on fait	we do		

(5) Quand il fait beau on va au parc (when it's nice we go to the park)

en été	in summer
en hiver	in winter
quand...	when...
il fait froid	it's cold
il fait chaud	it's hot
il fait beau	it's nice
il pleut	it's raining

on fait du VTT	we do mountain biking
on fait du skate	we do skateboarding
on fait du bowling	we do bowling
on regarde des DVD	we watch DVDs
on va...	we go...
au café	to the café
au parc	to the park
on joue...	we play...
au foot	football
au basket	basketball
on surfe sur internet	we surf the internet

avoir - to have (present tense)			
Singular		Plural	
j'ai	I have	nous avons	we have
tu as	you have	vous avez	you have
il a	he has	ils ont	they have
elle a	she has	elles ont	they have
on a	we have		

aller - to go (present tense)			
Singular		Plural	
je vais	I go	nous allons	we go
tu vas	you go	vous allez	you go
il va	he goes	ils vont	they go
elle va	she goes	elles vont	they go
on va	we go		

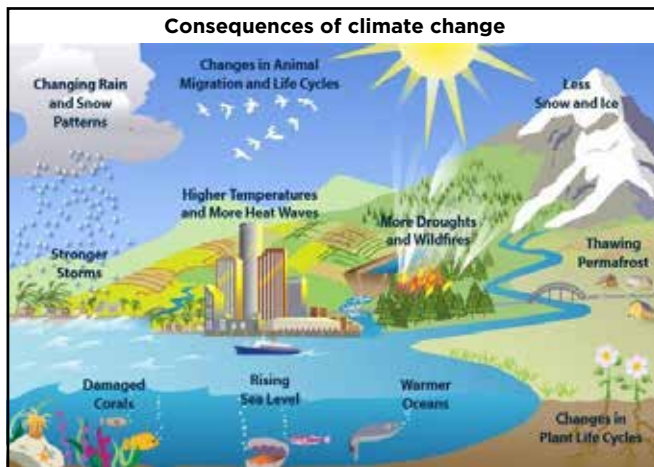
mon frère	my brother
ma sœur	my sister
mon père	my dad
ma mère	my mum
mes parents	my parents
mon copain	my friend (m)
ma copine	my friend (f)
mes copains	my friends (m)
mes copines	my friends (f)

être - to be (present tense)			
Singular		Plural	
je suis	I am	nous sommes	we are
tu es	you are	vous êtes	you are
il est	he is	ils sont	they are
elle est	she is	elles sont	they are
on est	we are		

Environmental issues	Environmental issues are harmful effects of human activity on the environmental e.g. air pollution, climate change and oil spills	
Rubbish / waste	Rubbish is what people throw away because they no longer need it or want it. It includes everything from a crisp packet to a broken toy.	
Problems with waste	Stuff that we no longer want ends up buried in landfill	
Energy Type	Advantage	Disadvantage
Coal	Reliable, cheap and plentiful	Produces carbon dioxide, contributes to climate change, non-renewable
Oil	Established fuel source, efficient, non-weather dependent	Can lead to oil spills, produces green house gasses, non-renewable
Wind	No carbon dioxide emission, plentiful in the UK, renewable	Requires wind, can be noisy
Nuclear	Very reliable, can produce lots of energy,	Expensive, difficult getting rid of waste
Hydro electric power	Sustainable, can be used night or day, renewable	Requires large dams to be built, expensive
Solar	Cheap, no green house gas emissions, renewable	Not suitable everywhere and at night

Recycling	Recycling is the process of converting waste materials into new materials and objects
Landfill	The disposal of waste material by burying it
Incineration	The destruction of waste material, by burning it.
Sources of plastic pollution	Litter, plastic fibres in clothing, food packaging, household waste.
Solutions to plastic waste	Recycling, plastic bag tax, coffee cup recycling, compostable plastics, avoid single use plastics
Waste management hierarchy	Ranks waste management options according to what is best for the environment. It gives top priority to preventing waste in the first place e.g. reduce then reuse then recycle
Sustainable	Good for local people, long lasting and good for the environment
Global footprint	The quantity of nature it takes to support people or an economy.
Ways of reducing our global footprint	Compost all food waste, solar panels, showers instead of baths, water butts, draft excluders
Food miles	The distance which a food item is transported during the journey from producer to consumer.

Case study: Food production in Mexico	
Avocado	The tropical evergreen tree that bears the avocado fruit, native to Mexico and grown elsewhere
Advantages of avocado production in Mexico	Disadvantages of avocado production in Mexico
Avocados are called 'green gold' because they earn more profit per acre than any other crop	Illegal avocado plantations often cut down ancient pine forests in the area to make room. This led to soil erosion and many habitats being destroyed.
Approximately 30,000 people are employed in Tancitaro producing avocados.	The boom in avocado prices has meant organised criminals have got involved with illegal avocado production
Avocados are worth around £1.2 billion each year to the Mexican economy.	Large amounts of wood is needed to pack the avocados for transit, this has led to large areas of local pine forest being cut down to provide shipping crates for the avocados.
Climate change	Environmental issues are harmful effects of human activity on the environmental e.g. air pollution, climate change and oil spills
Fossil fuel combustion	The burning of a natural fossil fuel e.g. coal, gas or oil
Climate change causes	Fossil fuel combustion, agriculture (farming), pastoral farming (animals e.g. cows), arable farming (crops) e.g. paddy fields melting of permafrost releasing methane,
Solution to climate change	Move towards electric vehicles, renewable energy e.g. solar, International agreements e.g. The Paris Accord 2015.



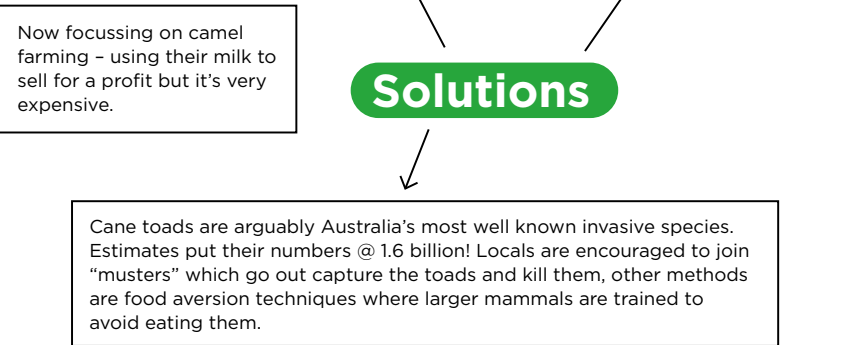
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In 2010 the Australian government endorsed a control plan, the Australian Feral Camel Management Project. This either:

- Culled camels and sold them for meat
- Sent them to the Middle East for Sale

Crown of Thorns Starfish – eating too much coral and depleting it. Divers injecting with white vinegar to kill them. Boom in numbers due to fertiliser runoff from farms along the coast.



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