Key Vocabulary

conserve	Use as few resources as possible.
consume	To use, eat or drink something.
fertile land	Land that is rich in nutrients and very good for growing crops.
food miles	The distance an item has travelled from where it was produced to where it was consumed.
import	Buying products and goods from abroad.
non-renewable energy	A source of energy that will eventually run out as it cannot be made as quickly as it is consumed, such as coal.
produced	Where something was made.
renewable energy	Renewable energy is created by resources that nature can replace, such as wind, water and sunlight.
solar energy	Energy that comes from the sun, using solar panels to generate electricity.
turbine	An engine that can turn movement into energy.

What Do We Need?

When people are looking to find a new home or new places are being built for people to live, there are many different needs to consider:

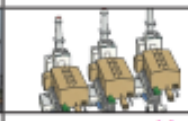
- basic needs - food, water and shelter
- additional needs - electricity, internet access, healthcare, entertainment, friends, transport links, information and news

For the very first settlers, finding the right place to settle was essential for survival, their four main areas of need were:

- site - flat ground, easy to defend
- aspect - sheltered from weather
- resources - food and water supply, woods nearby for food and materials, fertile land
- links - transport links

Types of Power Station

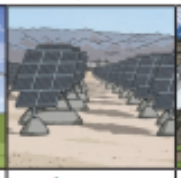
Electricity is made in power stations, transferred via pylons, through wires and into our homes.

Coal	Combined Cycle Gas Turbine (CCGT)	Nuclear	Pumped Storage
- burning coal.	- burning gas.	- uranium atoms split in a process called nuclear fission.	- water in dams used to turn turbines.
			
non-renewable	non-renewable	non-renewable	renewable

Renewable Energy

Renewable energy is made from resources which nature can replace, it is more environmentally friendly as it does not pollute the air or water.


wind power


solar power


hydro-power

Conserving Resources

It is important to conserve food, water and energy supplies because it is good for the planet and for future generations.

We can do this by:

- using resources as wisely/efficiently as possible
- conserving resources by using as little/few as possible

Increased pollution is causing global warming. As our planet heats up, extreme weather, floods and droughts are more likely to occur. These in turn affect farming, food production and access to drinking water. These events can have a knock on effect around the whole world.

Where Our Food Comes From

Our food comes from all over the world.

How far our food has travelled is called food miles. The further our food travels from where it is produced, the more CO_2 is likely to be released, contributing to climate change.

However, there are many benefits of importing food:

- more variety which supports a healthy diet
- boosts foreign economies by providing a market for foreign farmers
- protects against possible poor harvests
- supermarkets can negotiate lower prices
- foods that only grow seasonally in the UK are available all year round

Ways of Saving Resources

- Turn the tap off when brushing teeth.
- Turn the heating down and wear a jumper at home.
- Holiday in the UK rather than flying abroad.
- Switch things off when not in use e.g. TV, lights.
- Air dry clothes rather than tumble dry.
- Walk to school rather than using the car.
- Drink tap water not bottled water.
- Have a shower instead of a bath.
- Recycle household waste.

"Never doubt that a small group of thoughtful, committed citizens can change the world. In deed, it is the only thing that ever has."

- Margaret Mead

Key Vocabulary	
asexual reproduction	One parent is needed to create an offspring, which is an exact copy of the parent.
fertilise	The action of fusing the male and female sex cells in order to develop an egg.
gestation	The length of a pregnancy.
life cycle	The journey of changes that take place throughout the life of a living thing including birth, growing up and reproduction.
metamorphosis	An abrupt and obvious change in the structure of an animal's body and their behaviour.
pollination	The transfer of pollen to a stigma to allow fertilisation.
reproduction	The process of new living things being made.
sexual reproduction	Two parents are needed to make offspring which are similar but not identical to either parent.

Humans develop inside their mothers and are dependent on their parents for many years until they are old enough to look after themselves.

Amphibians such as frogs are laid in eggs then, once hatched, go through many changes until they become an adult.

Some animals, such as butterflies, go through metamorphosis to become an adult.

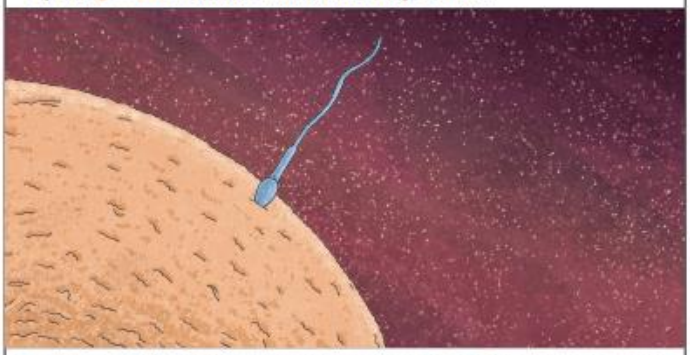
Birds are hatched from eggs and are looked after by their parents until they are able to live independently.

Some living things, such as plants, contain both the male and female sex cells. In others, such as humans, they contain either the male or female sex cell.

Reproduction in mammals

Mammals use sexual reproduction to produce their offspring.

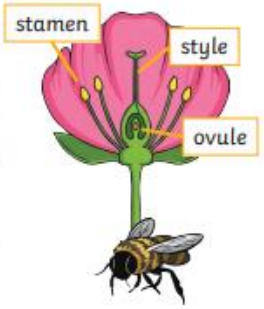
- The male sex cell, called the sperm, fertilises the female sex cells.
- The fertilised cell divides into different cells and will form a baby with a beating heart.
- The baby will grow inside the female until the end of the gestation period when the baby is born.



Echidnas and platypus are mammals but they lay eggs rather than giving birth to live young.

Plants

Most plants contain both the male sex cell (pollen) and female sex cell (ovules), but most plants can't fertilise themselves. Wind and insects help to transfer pollen to a different plant. The pollen from the stamen of one plant is transferred to the stigma of another. The pollen then travels down a tube through the style and fuses with an ovule.



Some plants, such as strawberry plants, potatoes, spider plants and daffodils use asexual reproduction to create a new plant. They are identical to the parent plant.