



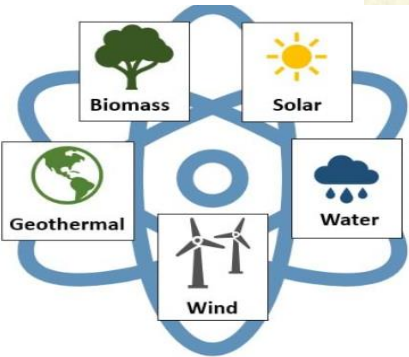
What do we want the human legacy on the natural world to be?

Energy from moving water is called hydropower.

Hydropower is the most commonly used renewable power source.

Hydroelectricity has been used for over a century.

Today around 90% of global renewable power comes from the movement of water and hydropower makes up 20% of the world's electricity generation.



Wind is the movement of air in the Earth's atmosphere. Wind is caused by the Sun. The Sun heats the Earth and when hot air rises, cooler air rushes in to replace it. This flow of air is wind.

Wind speeds are different depending on:

- where in the world you are;
- the season you are in;
- the features or **topography** of the landscape around you. Coasts, hills and mountains are windier than inland low-lying areas. Wind speeds increase the higher you are.

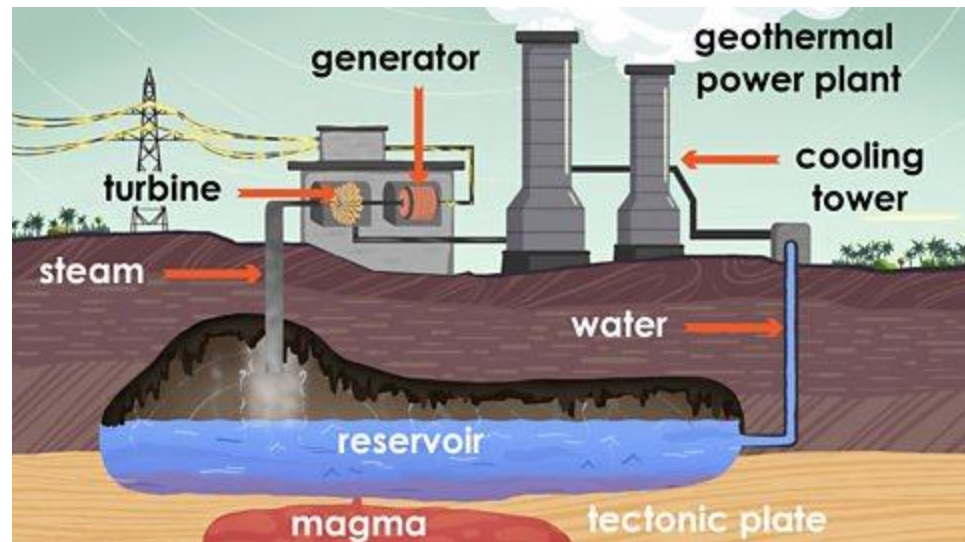
Wind energy is a renewable energy source and as long as the Sun exists, wind will exist in the Earth's atmosphere.

Heat or geothermal energy inside the Earth is:

- produced when certain chemicals inside the Earth start to break down;
- also created by friction when the Earth's tectonic plates collide and push against each other.

Where Can Geothermal Energy Be Found?

Places that are found along the Earth's plate boundaries or places that are close to volcanoes can use geothermal energy more easily. This is because the geothermal power is closer to the Earth's surface. However, in other areas on the Earth's surface, capturing geothermal energy can be much more difficult.



Key Vocabulary

Key Word	Definition
sustainable	The idea that humans must interact with the environment in a way that ensures there will be enough resources left for future generations.
unsustainable	Something that is unsustainable cannot continue at the same rate
Solar energy	light, heat, and other forms of energy given off by the Sun
energy	Energy makes things move. It makes machines go. Energy also makes living things grow.
impact	a forceful consequence; a strong effect.
hydroelectric	a type of renewable. energy that uses the power of moving water (hydropower) to generate electricity.
Geothermal	Heat from the earth.

Art



Antoni Gaudí (1852-1926) was a Catalan modernist architect known internationally as a genius. He created his own style in the modernism of the time. He was inspired by nature and this can be seen in his designs. His most famous contribution to art was the trencadis mosaic style. It is a technique that consists of joining together broken pieces of tiles. As he liked the round shapes of nature, and the square tiles weren't the right shape, he thought it was easier to break them. All his work has lots of unique characteristics.

Key Vocabulary

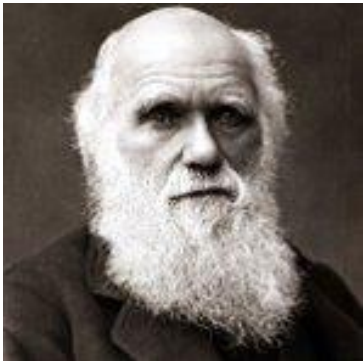
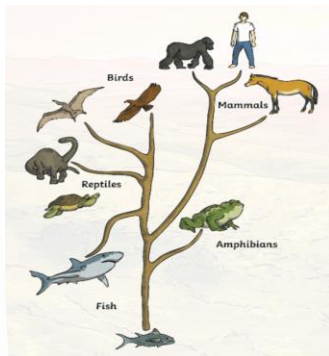
Key Word	Definition
Architect	somebody who designs and is in charge of making buildings.
Relief	A wall-mounted sculpture in which the three-dimensional elements are raised from a flat base
Carve	The act of using tools to shape something from a material by scraping away portions of that material
Scale	Refers to the overall physical size of an artwork or objects in the artwork
Proportion	The dimensions of a composition and relationships between height, width and depth
Texture	Refers to how something feels, including its appearance and consistency



Science



Evolution and inheritance



Charles Darwin was an English scientist who studied nature. He is known for his theory of evolution by natural selection. According to this theory, all living things are struggling to survive. The living things that have the most helpful traits for their environment tend to survive. These living things then pass along their helpful traits to their young.

Key Vocabulary

Key Word	Definition
Evolution	The theory that all the kinds of living things that exist today developed from earlier types.
Natural selection	The process through which populations of living organisms adapt and change to survive.
Survival	To remain alive.
Reproduction	The process of which a living organism produces offspring
Offspring	The young born of living organisms
Variation	The difference between living things of the same species.
Fossils	The remains or traces of plants and animals that live a long time ago.
Inheritance	When living things reproduce they pass on characteristics to their offspring.

