

# Geography Spring - Year 5 - How is climate change affecting the world? (Part 1)

## Sticky Knowledge:

- To know what renewable and non-renewable energy is.
- To know the location of Russia and that Russia is considered an energy superpower.
- To know the environmental impact of generating energy.
- To know how climate change is having an impact on the environment.
- To know that tropical storms are becoming more frequent and stronger.
- To know the impact of tropical storms.



Solar



Wind



Geothermal



Biomass



Hydro



## RENEWABLE ENERGY AND FOSSIL FUELS

Coal



Oil



Nuclear

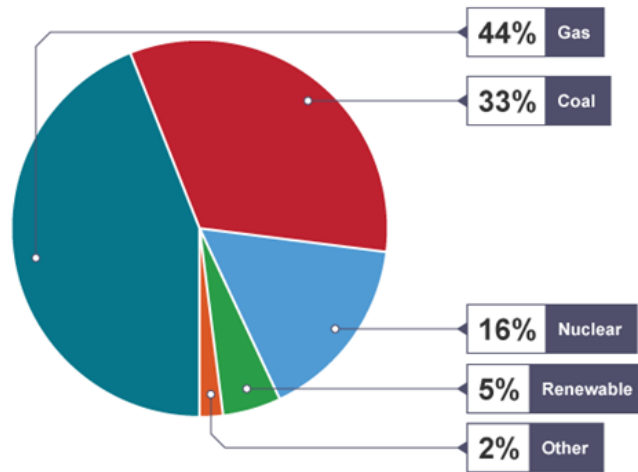


Gas

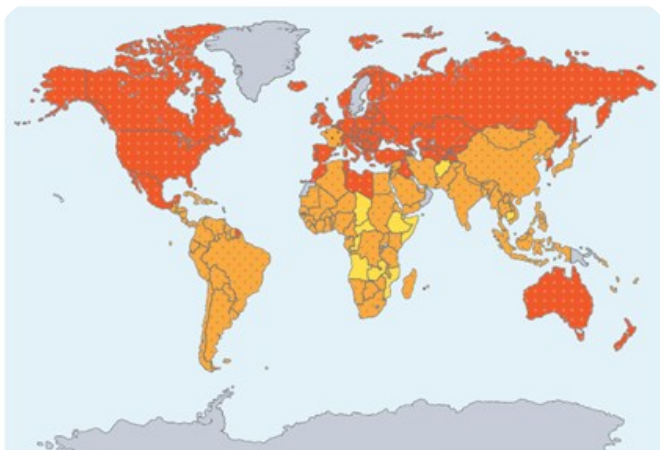


# Geography Spring - Year 5 - How is climate change affecting the world? (Part 2)

The pie chart shows the types of energy used in the world in 2014.



Non-renewable energy sources are unsustainable and there is a finite stock. They will run out.

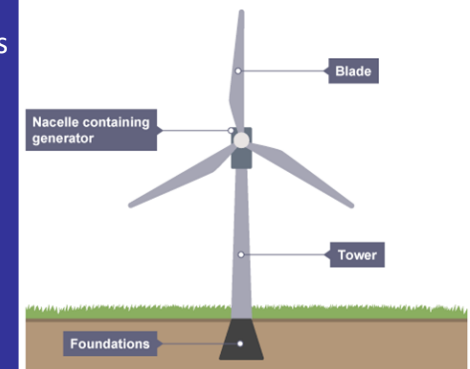


## Glossary:

- Renewable energy- comes from natural resources that are naturally replenished, such as sunlight, wind and waves.
- Non-renewable energy – comes from natural resources that are not naturally replenished (e.g oil/ coal)
- Biomes – areas of our planet with similar climates, landscapes, animals and plants.
- Consumption – the act or process of using up or consuming.
- Distribution – the act of distributing (giving out).
- Surplus – when there is more of something than is needed.
- Deficit – the amount by which something is less than what is needed.
- Energy superpower – a country that supplies large amount of energy resources to a significant number of other countries.
- Generated – to bring into being or to produce.
- Generation – the entire group of people who were born around the same time.
- Climate Change – a change in the average conditions (temperature and rainfall) in a region over a long period of time.
- Condensation – a process by which a substance changes from a gaseous state to a liquid state.
- Evaporation – a process where liquids change to a gas or vapour.
- Cumulonimbus clouds – large, tall clouds that are dark on the bottom and bring thunderstorms.
- Mitigation – to make something less severe.

## Wind turbines

Wind turbines use the wind to drive turbines directly. They have huge blades mounted on a tall tower. The blades are connected to a 'nacelle', or housing, which contains gears linked to a generator. As the wind blows, it transfers some of its kinetic energy to the blades, which turn and drive the generator.



The main features of a wind turbine