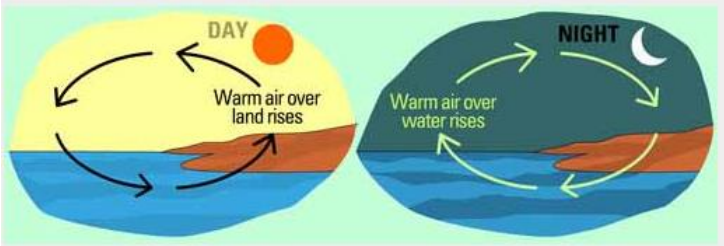
Year 4 – Wind Turbines
Electronics, Materials and Construction

Key vocabulary and information	
Wind turbine	A wind turbine, or alternatively referred to as a wind energy converter, is a device that converts the wind's kinetic energy into electrical energy. Wind turbines are usually sited on high hills and mountain ridges to take advantage of the prevailing winds.
Electricity	Electricity is the flow of tiny particles called electrons and protons. It can also mean the energy you get when electrons flow from place to place. … It can then power such things as heaters, light bulbs, and computers. Today, electricity provides most of the energy to run the modern world.
Battery	They offer a reliable source of electricity which can be used when solar or wind power is not available. Batteries are able to provide short term power output many times higher than the charging source output.
Solar power	Power obtained by harnessing the energy of the sun's rays.
Wind power	Power obtained by harnessing the energy of the rushing wind.
Anemometer	A tool to measure wind speed. It is used when setting up wind turbines to find the best spots!



How do winds form?

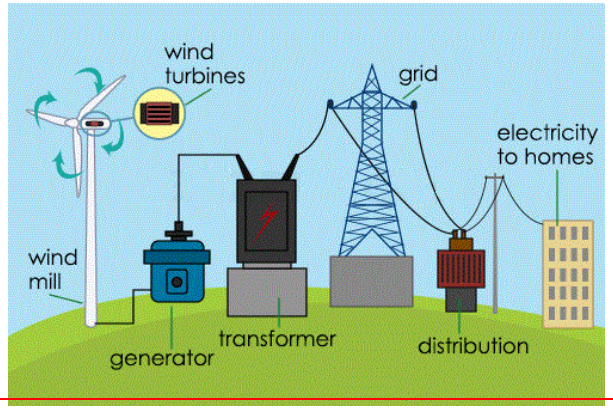
This can be explained in simple terms by the daily wind cycle. The earth's surface has both land and water. When the sun comes up, the air over the land heats up quicker than that over water. The heated air is lighter and it rises. The cooler air is denser and it falls and replaced the air over the land. In the night the reverse happens. Air over the water is warmer and rises, and is replaced by cooler air from land.

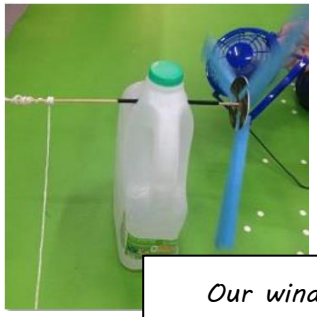
Internet Resources

http://www.windandsun.co.uk/

https://www.sustainablelearning.com/resource/build-your-own-wind-turbine

http://www.paksolarservices.com/what-is-wind-power-energy.html





Our wind turbines