

Key Learning

Create a wind turbine that stands at least 50cms tall and can move in the wind

Research wind turbines and consider how the blades move

Design a wind turbine that is sturdy enough to withstand the wind and is at least 50cms tall

Gather the resources needed to make the wind turbine

Make the wind turbine, ensuring that it is fit for purpose

Evaluate the wind turbine against the original design

Vocabulary

Wind Turbine

a machine that converts the kinetic energy of wind into electrical energy.

Sturdy

strong and well-built, able to withstand rough conditions, such as wind or weather.

Blade

the rotating part of the wind turbine that captures the energy of the wind.

Rotor

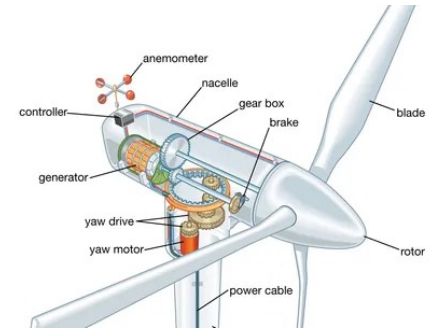
the assembly of blades and hub that spins around the main shaft of the wind turbine.

Generator

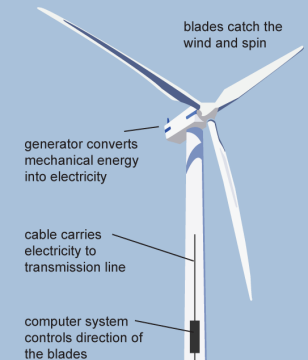
a device that converts the mechanical energy from the rotor of the wind turbine into electrical energy.

Wind Speed

the rate at which the wind is blowing, measured in miles per hour or meters per second



Horizontal-axis wind turbine



Source: Adapted from National Energy Education Development Project (public domain)



Prior Learning –