

Unit 5 – Energy - Check List

Check your learning ! Can you do all the things on the list below ?

I can:

- state that energy is the ability to do work and is measured in joules (J).
- state the principle of conservation of energy as 'energy cannot be created or destroyed but can only be converted from one form to another'.
- state that the Sun is our primary source of energy in the form of heat and light and gravitational energy and how this provides secondary sources on Earth. ie photosynthesis or the water cycle.
- state that there are renewable and non-renewable sources of energy.
- understand that renewable and non-renewable sources of energy both get 'used up', (converted into other energy types), but that, unlike non-renewable sources which take millions of years to form, renewable resources can be replaced instantly or very quickly. ie. biomass.
- list coal, oil and gas as examples of fossil fuels which are non-renewable.
- list solar energy, hydro-electric energy, wind energy, wave energy, biomass energy and geothermal energy as examples of renewable energy sources.
- list the advantages and disadvantages of different energy sources, including nuclear energy.
- list, with examples, different types of energy: potential, kinetic (movement), heat, light, sound, electrical, chemical, magnetic and nuclear.
- describe an experiment to show the conversion of chemical energy to electrical energy to heat energy. ie. the heat produced by a torch bulb.
- describe an experiment to show the conversion of electrical energy to magnetic energy to kinetic energy. ie. picking up paper clips with an electromagnet.
- describe an experiment to show the conversion of light energy to electrical energy to kinetic energy. ie. a solar powered car.