ENERGY SOURCES

1. Match the words with their definitions

Alternative	A resource that will not be used up or can be replaced.
Renewable	A source that can be used for a long time in the future. It meets the demand of the present without affecting the ability of future generations to meet their needs.
Non-renewable	
Sustainable	A process used for generating electricity that uses the movement of a metal coil and a magnet.
Electromagnetic induction	A resource that exists in a finite amount that cannot be replaced.
	A source which is not a fossil fuel.

2. Classify the following energy sources into renewable or non-renewable.

oil

geothermal

hydroelectric

wave

coal

nuclear

tidal

natural gas

wind

solar

biofuels

3. Fill in the gaps to describe how energy is produced by electromagnetic induction. Complete with the words provided but beware of the exact correct spelling (copy from the box) or it will be marked as a mistake.

Faraday	shaft	generator	rotated	copper
steam	stream	rotary	conducting	electricity
electrical	blades	move	boiler	burner
electricity	magnet	kinetic	Turbines	turbine
coils				

This process was discovered in the 1820s by Michael ----------, and it transforms ----------energy (the energy from movement) into ---------- energy using loops of a ----------material such as ---------- and a ----------. As the ---------- are ---------- close to the magnet, ---------- is generated.

A power source is needed to rotate the coils. This comes from a ---------- connected to the ----------.

----------are designed to provide the---------- motion needed in the generator. This is typically done by passing a ----------of gas or liquid over the turbine ---------- causing a ---------- to move.

A heat source in the ---------- heats up water in the ---------- which is converted to ----------. The steam passes through the blades of the turbine, causing them to ----------. As a result of the rotation of the shaft, the copper coils in the generator move, producing ----------that is transferred by conductive wires to the light bulb.