

# St Luke's Knowledge Organiser

## Year 5 - Energy and Sustainability

### What I should already know

- ◆ Within the United Kingdom there are many mountain ranges that make up its physical geography.
- ◆ Liverpool is surrounded by the Welsh mountains and the Pennines
- ◆ Children that make up the Welsh mountains and their significance to the surrounding environment.
- ◆ Sticky knowledge from topics covered in Year 1, 2, and 3 (local area, cities, UK, Weather, Rivers, Europe and the Continents)



### Sticky Knowledge

- ◆ Humans do not create natural resources
- ◆ UK has a lot of natural resources, including fossil fuels for energy, crops for food, and livestock for food as well as clothes.
- ◆ Every item in your home was made from a raw material that came from a natural resource
- ◆ Animals can be considered an example of both a renewable and non-renewable natural resource. They can reproduce to produce young offspring, but some animals could be hunted and become extinct.
- ◆ A few natural resources are regarded to be inexhaustible such as sunlight and geothermal energy. This means they will never run out.
- ◆ Today, over 80% of the total amount of energy used globally comes from fossil fuels but a large wind turbine can power 3000 households
- ◆ 0.01% of UK energy is generated by tidal power. As an island nation, over 20% of the electricity needed could be generated by tidal power.

### Vocabulary

<b>natural resources</b>	Materials or substances that occur in nature. Not man-made.
<b>renewable</b>	A natural resource that can be replaced when used.
<b>non-renewable</b>	A natural resource that will run out one day.
<b>Sustainable</b>	Able to be continued at a good level over a good level of time.
<b>fossil fuels</b>	Oil, coal and natural gas. Formed from the remains of plants, animals and other living things a long time ago. A non-renewable natural resource.
<b>carbon neutral</b>	The term given to attempts to remove carbon dioxide from the atmosphere.
<b>green energy</b>	Comes from natural sources such as sunlight, wind, rain, tides, plants, algae and heat. They are renewable.
<b>biomass</b>	Organic matter that can be used as fuel, especially in a power station for the generation of electricity.
<b>turbines</b>	A machine for producing continuous power in which a wheel or motor is made to revolve by a fast-moving flow of water, steam, gas or air.

### Geographical skills and fieldwork

- ◆ To use fieldwork to observe, measure, record, present the human and physical features in the local area. Sketch maps/plans/graph/ digital technology.
- ◆ Use 8 points of the Compass.
- ◆ To use symbols and keys including ordinance
- ◆ Use Maps, atlases, globes, digital computer mapping to locate countries and describe features.
- ◆ To use 4 figure grid references