

St Hilary School – Project Knowledge Organiser

Project: Can humans create a sustainable utopia by rethinking how we use Earth's resources?

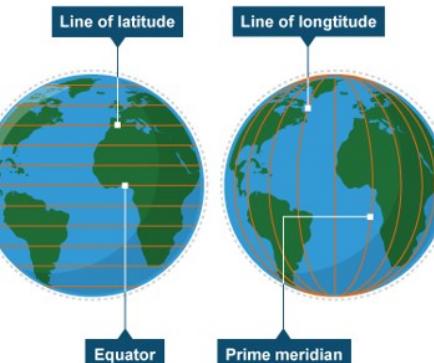
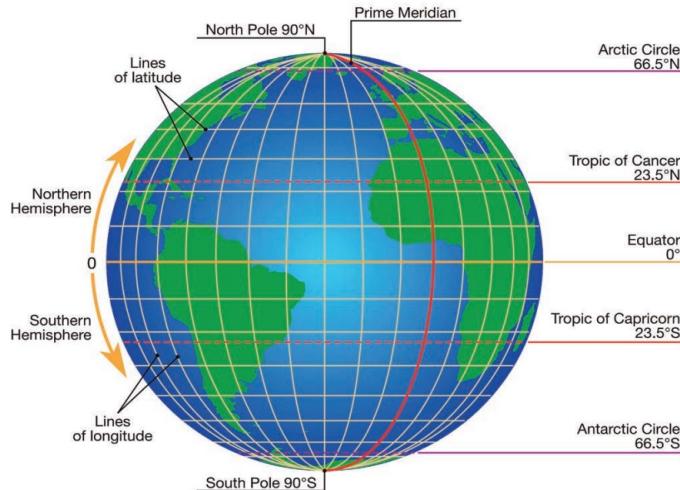
Year 6

Types of Energy & Natural Resources in the UK & North America

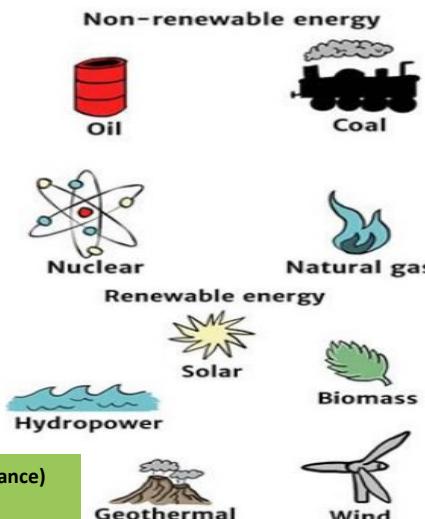
What should I already know?

- The continents and location of many countries (mostly European) in relation to the rest of the world.
- The trade links some countries had due to exchanging of natural resources.

Geography concepts: Place, Environment & Scale



Types of Energy (Concept: Sustainability)



Key Vocabulary

Definitions (Geography)

Renewable energy	energy that is collected from renewable resources that are naturally replenished.
Non-renewable energy	a source of energy that will eventually run out.
Fossil Fuels	a naturally occurring fuel, such as coal, formed in the past from the remains of living organisms
Sustainability	using natural resources responsibly, so they can support both present and future generations.
Biomass energy	energy generated or produced by living or once-living organisms. The most common biomass materials used for
Geothermal energy	energy is heat that comes from inside Earth which can be used to heat homes or be converted into electricity.
Hydropower energy	energy that is generated from moving water such as rivers.
Solar energy	comes from sunlight that reaches earth.
Wind energy	wind power is harnessed by a machine called a wind turbine.
Nuclear energy	energy found in the nucleus (core) of atoms – tiny particles
Natural resources	something that is found in nature and can be used by peo-
Turbine	an engine that can turn movement into energy.

Oracy challenge: Can you prepare a short presentation that includes appropriate, subject specific vocabulary answering our driving question?

Remember to be aware of your target audience and deliver it with flair!

Timeline of renewable energy events (History concepts: Chronology & Significance)

Not to scale!

200 BC—Waterwheels (Europe)

A waterwheel converts the energy of moving water into mechanical or electrical energy.

1860—Solar Energy System (France)

Invented by French investor Augustin Mouchot—ran trials on his 'sun meter'.

1927—Windmills (USA)

First sale of commercial wind turbines in USA—people took notice!

1958—Solar goes to space

The first US satellite use solar energy as its power source.

2013—Ivanpah: World's largest solar power plant built in South California.

1590—Windmill (Netherlands)

Windmills were used primarily to pump water and to mill grain.

1887—Windmills (Europe)

Wind turbines were built and had started to generate interest in and around Europe.

1935—Hoover Dam (USA)

Built to control the water-flow along the Colorado River and to provide Southern California and Arizona with a steady water supply.

2010—A biomass system

Created by Danish inventor Jens Dall Bentzen greatly increases the types of biomass fuels that can be used.