

S2 Topic 1a — Earth’s Resources			Skills I will work on in this topic:		
Knowledge I need to know by the end of this topic:			Lesson 1 — Observing (I can make observations about products of burning fuels).		
Coal, Crude Oil and Natural Gas are three fossil fuels formed millions of years ago from the remains of dead vegetation and plankton.	😊 😐 ☹️		Lesson 2 — Research & Referencing (I can research the advantages and disadvantages of renewable energy sources including a reference of the sources used).		
Fossil Fuels are non-renewable sources of energy that when burned releases CO₂ gas into the atmosphere.	😊 😐 ☹️		Lesson 3 — Literacy (I can read a map and land information to indicate suitable sites for a renewable energy power station).		
Uranium is another non-renewable source of energy. Uranium doesn’t produce any CO₂.	😊 😐 ☹️		Lesson 4 — Present Scientific Findings (I can present my findings on suitable sites for a renewable power station).		
Solar, Wind, Hydroelectric and Wave are examples of renewable sources of energy. They do not produce CO₂ when generating electricity, but they can be expensive to build and find appropriate sites / locations to place them.	😊 😐 ☹️		Lesson 5 -- Equipment Handling, Identifying Variables & Recording Results (I can plan and design a scientific investigation around renewable power stations).		
Wind Power—Factors like angle of the blades, shape of blades and wind speed all affect the voltage produced by a wind turbine.	😊 😐 ☹️		Lesson 6 — O1 Plan and Design a Scientific Investigation (I can plan an experiment to look at factors that affect voltage of a wind turbine).		
There are three different types of Rock: (1) Sedimentary;(2) Metamorphic; (3) Igneous.			Lesson 7— Writing a Scientific Report (I can write up a lab report investigating what will affect the voltage of a wind turbine).		
1) Formed from sediments that have settled at the bottom of a lake, sea or ocean, and have been compressed by pressure over millions of years that have settled at the bottom of a lake, sea or ocean, and have been compressed by pressure over millions of years. (Examples: Sandstone and Limestone).	😊 😐 ☹️		Lesson 8 — Observing (I can observe the subtle differences between sedimentary, metamorphic and igneous rocks and state how they were formed).		
2) Metamorphic rocks are formed by the combined effect of heat and pressure on other rocks:Pressure from rocks above...and heat from magma nearby. (Examples: Slate and Marble).	😊 😐 ☹️		Lesson 9— Research (I can research the chemical composition and give a description of minerals).		
3) Igneous rocks are formed when lava or magma cools down and solidifies. If the lava or magma cools QUICKLY it has SMALL crystals. If the lava or magma cools SLOWLY it has BIG crystals. Examples: Granite and Pumice).	😊 😐 ☹️		Lesson 10+11— Carrying out a Practical Activity (I can investigate the water retention of a selection of soils).		
A mineral is a naturally occurring inorganic element or compound having an orderly internal structure and characteristic chemical composition, crystal form, and physical properties. Common minerals include quartz, feldspar, mica, amphibole, olivine, and calcite.	😊 😐 ☹️		Lesson 12 — Equipment Handling (I can test the pH of soil samples).		
			Lesson 13— Research & Referencing (I can research positive and negative aspects of how farming affects soil).		
			Lesson 14— Research (I can research natural resources and state where they are used and how they are extracted).		
- Soil is a mixture of tiny particles of rock, dead plants and animals, air and water. Different soils have different properties depending on their composition. - Humus is the material in soil that is formed by the decay or partial decay of plants, animals and micro-organisms. - Sandy soil is pale coloured and has large particles. These create lots of small air gaps. Water drains through them easily, so it usually feels dry. - Clay soil is usually sticky and has small particles. They contain very few air gaps and water does not drain through it easily. Chalky soil is a light brown soil. Water drains through it quickly. • - Peat does not contain any rock particles. It's made from very old, decayed plants and is dark, crumbly and rich in nutrients. - Loam soil is a type of soil that is a mixture of sand, silt, and clay. Loam soil holds nutrients and has a texture that retains water long enough for plant roots and it drains well.	😊 😐 ☹️		Evaluation of EARTH'S RESOURCES		
	😊 😐 ☹️		Test score (%) _____ CfE Level: _____		
	😊 😐 ☹️		Target for next topic's test: _____ (%) CfE Target Level: ____		
	😊 😐 ☹️		Strengths—what do you think you did well in this topic?		
	😊 😐 ☹️		Areas for improvement—what do you want to focus on improving going into the next topic?		
Farming can affect soil in many ways, e.g heavy machinery compacts soil. Fertilisers can be added to provide nutrients back into the soil.	😊 😐 ☹️				
Resources like beeswax, cellophane and milk can be extracted from natural substances.	😊 😐 ☹️				