

Scheme of Learning: KS3 – Year 7

Topic Sequence:

| 1 | 2 | 3 |
|-----------------|---------------------------------|----------------------|
| Geography of me | Wild weather and climate change | Energy and resources |

Topic Overview:

This topic is the final for year 7 Geographers. From the previous topics studied, they have a better understanding of where they live and issues and changes in the local area. They have also been introduced to global climate issues including climate change, tropical storms and other extreme weather events. The aim of this topic involves investigating some of the issues surrounding the supply and use of different natural resources (e.g. energy, food, water and minerals). Linked to their understanding of the greenhouse effect and global warming (unit 2), they will be able to appreciate some of the issues surrounding the use of fossil fuels and gain an appreciation for the need to make the switch from non-renewable to renewable energy sources. In addition to energy, they will also look at the challenges of providing food and water to a growing world population and investigating how the misuse of some of the world's natural resources is causing many challenges. Throughout the unit we will readdress the importance of sustainability and the need to conserve and protect our planet for future generations.

Lesson Sequence:

To begin this unit, we will be looking at identifying some of the world non-renewable resources and some of the advantages and disadvantages of using fossil fuels to generate electricity. This will lead us on to investigate the Trans-Alaskan pipeline, an example that we return to as part of the AQA GCSE. We will start to evaluate some of the opportunities and challenges of extracting oil and how it creates economic benefits, but at a cost to the environment. We will also introduce the concept of different stakeholders and how they have differing and conflicting views on the oil industry. Next the students will be introduced to the differences between non-renewable and renewable energy sources. We will start to identify the different examples and evaluate their advantages and disadvantages, linking to prior knowledge such as global warming. Following on from this, we will start to debate future energy alternatives and make decisions on the sustainability of biofuels and hydroelectric power.

Next we will focus on the next essential natural resource, which is water. We will look at the global distribution of water and consider where in the world is experiencing a water crisis and the physical and economic reasons for water shortages. Next we will link this understanding to South African water crisis, investigating the causes and impacts of water shortages. We will next look at the strategies that have increased or decreased supplies of water and make decisions on the best way to help South Africa. To end the water section, we look at the impacts of overextraction of water in Fiji and how this impacts people, the economy and the environment. Following the topic of how resources are misused, we then consider how the modern world, based on consumerism, is having a massive influence on the amount of e-waste that is being produced. We finally evaluate the need to dump this topic waste in less developed countries such as Ghana.

Food is the next natural resource that we study. To begin we look at the (positive and negative) impact that food miles have on our planet, with links to future sustainability. The distribution of food is very uneven, so we start to look at the causes, impacts and solutions to the growing food crisis, linking to other topics such as climate change and level of development.

Next we start to consider how we can live more sustainably and address some of the natural resource supply concerns discussed in the prior lessons within this unit. We start to recognise how our lives and the future growth of towns and cities can be more sustainable. We do this through designing an ecotown which addresses issues over energy production, food and water supply and combating issues such as climate change.

Finally we look at two more localised examples of resources being misused. The Easter Island lesson involves solving a mystery to consider why protecting natural resources is so important and uncovering how the lessons learnt can help us to achieve future sustainability. Then we look at the coltan industry and how this has caused many opportunities and challenges to people living in the DRC. This leads us to the final assessment.

Sequence of Lessons:

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|----|------------------------------------|
| 1 | Fossil fuels |
| 2 | Trans Alaskan Pipeline |
| 3 | Renewable and non-renewable energy |
| 4 | Biofuels |
| 5 | 3 Gorges dam |
| 6 | Water crisis |
| 7 | South Africa Day Zero |
| 8 | Fiji Water |
| 9 | E-Waste |
| 10 | Food Miles |
| 11 | Meeting future food demands |
| 12 | Living sustainably |
| 13 | Living sustainably |
| 14 | Easter Island |
| 15 | Coltan |
| 16 | Revision |
| 17 | Assessment |
| 18 | |

Topic Resources:

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|-----------------------|----------------------|-----------------------------|---|
| Knowledge Map: | Energy and resources | Any other Resources: | Any other resources needed should be here |
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Assessment:

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| Knowledge: | 30 question knowledge test |
| Application of Knowledge: | 6 mark question on application |

Supportive Reading:

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| Any supported reading listed here | https://www.nationalgeographic.com/science/article/partner-content-south-africa-danger-of-running-out-of-water |
| | https://borgenproject.org/tag/water-shortage-in-fiji/ |
| | https://theconversation.com/what-coltan-mining-in-the-drc-costs-people-and-the-environment-183159#:~:text=Coltan%20mining%20has%20destroyed%20much,is%20now%20estimated%20at%20250. |