

Year 5 Geography Autumn Plan - Natural Resources

Unit Rationale

In this unit, children will explore the interconnectivity between human and physical geography by looking at natural resources (e.g. water, oil, coal, gas) and how people use them to survive (e.g. transport, drinking water, fossil fuels). They will need to draw on their knowledge of why people settle in certain places and the structure of the earth in order to access these lessons. They will be considering the scale of trade and the impact of the use of natural resources on the environment. They should also consider their own role in the use of natural resources.

National Curriculum Objectives:

Locational knowledge

- locate the world's countries and identifying human and physical characteristics.
- identify key topographical features (including hills, mountains, coasts and rivers)
- identify land-use patterns and understand how some of these aspects have changed over time

Place knowledge

- understand geographical similarities and differences through the study of human and physical geography

Human and physical geography

- describe and understand key aspects of physical geography (e.g. biomes and vegetation belts and rivers) and human geography (e.g. types of settlements and land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water)

Geographical skills and fieldwork

- use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied
- use of the eight points of a compass, four and six-figure grid references, symbols and keys

Cross Curricular Links:

History - Year 2 - Explorers (identified new countries and found different resources)
 History - Bronze Age and Iron Age (dug tin and copper to make bronze)
 Science - Year 3 - Rocks (make up of the earth to explain where resources come from)
 Science Year 5 - Earth and Space (solar energy)
 Science - Earth Day
 PSHE - Our Planet

Trips/Visits:

Potential trip to wind farm
 e.g. whitstable
 Visitor in to talk about sustainability/renewable energy/natural resources (e.g. the woodland trust)

Modern Day Links:

Climate change
 Trade and availability of resources
 Sustainability - renewable and nonrenewable energy

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| <p>Prior Learning:</p> <p>EYFS - where does our food come from? Year 2 - Settlements - Villages, Towns and Cities Year 3 - Water, Weather and Climate Year 4 - Rivers</p> | <p>Substantive Knowledge:</p> <p>Natural resources are materials or substances that are produced by the environment. Humans use natural resources to survive. They can be used to heat homes, transport people around the world, feed and clothe them.</p> <p>Natural resources include wood, water, coal, food, minerals and they are not evenly distributed globally. This means some countries rely on trade in order to access resources.</p> <p>Resources can be renewable (used again) or nonrenewable (exhaustive) and this can have a detrimental impact on the environment.</p> |
| <p>Big ideas/Disciplinary Knowledge</p> <ul style="list-style-type: none"> • Scale - trade can be local or global • Interconnection - resources available in the environment lead people to settle. There is then an interplay between the landscape and human activity and it is a delicate balance • Physical and human processes - resources can be natural or man-made. Natural production includes coal, water, wood etc and can be created on different timelines. Man-made are products like plastic that are not naturally occurring. They often require fossil fuels to be produced in factories • Environmental impact and sustainable development - resources can be renewable or nonrenewable. Each have an impact on the environment but on different scales • Cultural awareness and diversity - there is not an even distribution of resources | <p>What next?</p> <p>Children will apply their understanding of natural resources to the next unit of biomes identifying which resources you can find in each biome. e.g. boreal forests will have wood</p> <p>It will lead well into sustainability, population and migration, and globalisation units in Year 6 where children should be considering the wider impact of human and physical geography on global issues such as availability of resources, equality and climate change.</p> |

| Lesson | WALT | What should the children remember? | Lesson plan and outcome | Key Vocabulary | Key Questions |
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| Lesson 1 | Identify the world's natural resources In books | Chn should remember that explorers went to different parts of the world and discovered new resources (e.g. silk, food, gold) Children should be able to recall the make up of the earth from Science and consider where resources come from | Activate learning: Show chn a collection of resources we use at school. Ask them to identify the collective name for the objects - resources. Chn to rank the resources we use at school. Model: Then show chn a collection of natural resources. Explain that natural resources are materials or substances that are produced by the environment . Humans use natural resources to survive. They can be used to heat homes, transport people around the world, feed and clothe them. Task: Rank the natural resources in order of importance , justifying your reasoning. e.g. I think water is the most important because we drink water and need it to survive but it can also be used to water the crops, to transport goods on boats and as a source of sustainable energy production in hydropower. Reflection: are these all natural resources? How do you know? | natural resources environment importance source sustainability | |
| Lesson 2 | Identify natural resources in the UK In books | Chn should recall what resources are Chn should be able to locate the UK and identify the countries and some key cities | Activate learning: One minute - write down as many natural resources as you can in 10 seconds Model: Locate the UK on a map and identify some key physical features. Show chn the key natural resources available in the UK. e.g. geological resources, agriculture, fishing. Explain how and why they are available in the UK. Put pictures up of how they are extracted and ask chn to think about what they could be doing. Use BBC Bitesize link for further support. Watch Video. https://www.bbc.co.uk/bitesize/topics/zshp34j/articles/z62qy9q Make notes as a class on fossil fuel extraction, mining , | mining coal pressure United Kingdom Industrial Revolution | |

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| | | | <p>farming and fishing. Make links to the Industrial Revolution and how there has been a changing use of resources in the UK. We are moving towards importing goods and producing things with the natural resources to then export.</p> <p>Task: explain how the use of natural resources of the UK has changed over time using sentence starters. In the UK, we have... We</p> <p>Reflection:</p> | | |
| Lesson 3 | <p>Identify natural resources in Chile</p> <p>Oracy lesson</p> <p>Photo Sheet in books</p> | <p>Chn should recall what resources are</p> <p>Chn should be able to locate Chile on a map and identify some of its physical features</p> <p>Chn should be able to make comparisons</p> | <p>Activate learning: True or False? 'Paper is a natural resource'</p> <p>Model: Locate Chile on a map and identify some key physical features.</p> <p>Show chn the key natural resources in Chile. e.g. mining, fishing, agriculture, timber, fossil fuels Explain to chn that when countries have valuable resources, this can lead to conflict with other countries that are lacking resources. Link to History with 'The War of the Pacific'.</p> <p>What was the impact on Chile for winning the war? They were able to access more of the pacific ocean which increased trade links and they kept their saltpeter which is used as a fertiliser for agriculture meaning their agriculture will continue to thrive.</p> <p>Show slide of UK and Chile to compare natural resources. Complete the Venn Diagram to show key similarities and differences and reasons why. e.g. Chile and the UK both have good agriculture due to large areas of unpopulated green space.</p> <p>Task: compare the UK and Chile using an oracy bullseye to include key vocabulary.</p> | <p>natural resources Chile copper The Pacific War comparison</p> | |

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| | | | Reflection: 'The UK and Chile have similar/different natural resources' Choose your answer and be prepared to explain your reasoning. | | |
| Lesson 4 | Explore the trade of natural resources | <p>Chn should recall what natural resources are</p> <p>Chn should recall why people choose to settle somewhere</p> <p>Chn should recall how climate varies across the world</p> | <p>Activate learning: Chile has better natural resources than the UK. Discuss with your partner.</p> <p>Model: ask chn to think about how different the natural resources in different countries are. Compare Chile and the UK. Do they have the same resources?</p> <p>What do you think the most important resources are for life? What could people do if they did not have these resources?</p> <p>They would trade. Trade is the import and export of goods out of a country. For example, the UK has developed technology, makes cars and crude oil. We do not have such a good food supply therefore we trade our technology for food from other countries.</p> <p>It started locally in the Neolithic era, developed with the invention of ships in the 17th century and has increased further with better communication, transport and technology in the 21 century.</p> <p>It has allowed us to eat more diversely and all year round as we are not limited to foods that are in season.</p> <p>Task: Locate the source of different foods on the map and draw the trade route to the UK.</p> <p>Reflection: could you survive without trade in the UK?</p> | trade | |
| Lesson 5 | Evaluate the sustainability of natural resources | | <p>Activate learning: I couldn't disagree more game with <i>'I think we should look after the environment'</i></p> <p>Model: explain to chn that we need natural resources to survive and there are different ways of extracting them, e.g. mining,</p> | <p>sustainability</p> <p>environment</p> <p>climate change</p> <p>mining</p> <p>logging</p> | <p>https://youtu.be/0L_mocq4HpQ</p> <p>Lyfta Amazonian Treats</p> |

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| | | | <p>logging, farming. Ask chn to think about which natural resources each would extract. Explain that these methods can have an impact on the environment. Show different impacts on the environment.</p> <p>Ask chn to consider how it could impact the environment and share ideas as a class and add to the table. Show information slides and add any further information to the table in a different colour.</p> <p>Task: Consider the school day and write down all the resources you would use. Think about the impact on the environment you would have in a day. We are going to write an action plan for how we are going to protect the planet while at school.</p> <p>Reflection: how sustainable are you?</p> | farming | |
| Lesson 6 | Evaluate the sustainability of natural resources | <p>Chn should recall the natural resources</p> <p>Chn should be able to define sustainability and consider the sustainable use of natural resources</p> <p>Chn should be able to apply their knowledge to their own context</p> | <p>Activate learning: True or False? 'Nobody can be totally sustainable'</p> <p>Model: show chn the table from the day before about the impact of natural resources on the environment. Explain that they are going to make an action plan for the school to show our environmental impact and suggest ways that we could improve it.</p> <p>Consider these questions: How sustainable are we at school? Are there changes that we can make? Are there some resources that we cannot avoid using? How do we justify the use or consider which is better?</p> <p>Task: Create a school action plan for use of natural resources at school and a suggestion.</p> <p>Reflection: share plans</p> | Sustainability Environment Climate change Conscious choices | <p>How sustainable are we at school?</p> <p>Are there changes that we can make?</p> <p>Are there some resources that we cannot avoid using?</p> <p>How do we justify the use or consider which is better?</p> |