

Cumwhinton School Curriculum - Geography Y6 SUM

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| Year 6 | NC Content | <p>Use the 8 points of a compass and four and six figure grid references to build their knowledge of the UK and the wider world.</p> <p>Use a range of fieldwork methods to observe, measure, record and present human and physical features in the local environment.</p> <p>Make comparisons between the physical and human geography of countries in different continents.</p> <p>Understand the way humans have altered the physical geography of a location.</p> <p>Suggest what a place might be like in the future, referring to issues affecting the environment such as the distribution of natural resources.</p> <p>Describe and understand key aspects of physical geography including biomes and climate zones.</p> <p>Understand the significance of the Greenwich Meridian and explain how the time zones work.</p> <p>Understand land use patterns within the UK and how these have changed over time.</p> |
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Geography

Geographical skills and fieldwork Place Knowledge Human and Physical Geography Location Knowledge

Mapping across the Year

| | AUTUMN | SPRING | SUMMMER |
|-----------------------------------|--|--|---|
| Geographical skills and fieldwork | <p>Use the 8 points of a compass and four and six figure grid references to build their knowledge of the UK and the wider world.</p> <p>Use a range of fieldwork methods to observe, measure, record and present human and physical features in the local environment.</p> | | |
| Place Knowledge | | Understand the way humans have altered the physical geography of a location. | Understand the way humans have altered the physical geography of a location. Make comparisons between the physical and human geography of countries in different continents. |
| Human and Physical Geography | | | Suggest what a place might be like in the future, referring to issues affecting the environment such as the distribution of natural resources. Describe and understand key aspects of physical geography including biomes and climate zones. |
| Location knowledge | | Understand the significance of the Greenwich Meridian and explain how the time zones work. Understand land use patterns within the UK and how these have changed over time. | |

CONCEPTUAL SCHOOL AMBITION DRIVERS

| | EYFS & KS1 | LKS2 | UKS2 |
|-----|----------------|----------|----------------|
| AUT | Diversity | Fairness | Individuality |
| SPR | Truth | Change | Resilience |
| SUM | Responsibility | Equality | Sustainability |

Geography - SUMMER YEAR 6

THE WORLD - Sustainability

Geographical skills and fieldwork Place Knowledge Human and Physical Geography Location Knowledge

| | NC | CUMWHINTON CURRICULUM |
|--|----|-----------------------|
|--|----|-----------------------|

Finding out
(Facts & knowledge)

Understand the way humans have altered the physical geography of a location.

Make comparisons between the physical and human geography of countries in different continents.

Describe and understand key aspects of physical geography including biomes and climate zones.

Suggest what a place might be like in the future, referring to issues affecting the environment such as the distribution of natural resources.

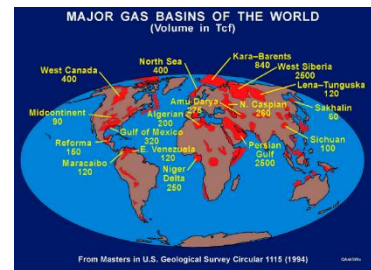
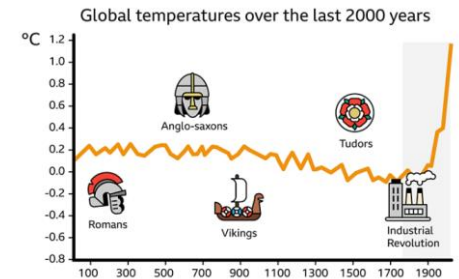
Recap what children have learnt in Year 4 and Year 5 about biomes and rivers and how humans have affected the world's climate and ecosystems. (E.g. global warming affecting weather patterns and causing flooding, drought and deforestation).

What is the difference between a human and physical geography feature?
BBC Bitesize video: <https://www.bbc.co.uk/bitesize/topics/zqj3n9q/articles/zr8q7nb>

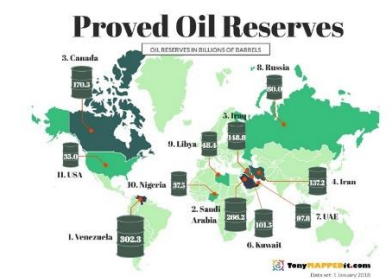
Human and physical features are things that you can see all around you. Physical features like seas, mountains and rivers are natural. They would be here even if there were no people around. Human features like houses, roads and bridges are things that have been built by people.

What are fossil fuels?
Fossil fuels are made from decomposing plants and animals. These fuels are found in the Earth's crust and contain carbon and hydrogen, which can be burned for energy. Coal, oil, and natural gas are examples of fossil fuels.

Fossil fuels are the largest driver of global climate change.
What are the effects of burning fossil fuels?
Carbon fuels such as wood, coal, and petroleum release unburnt carbon particles into the environment. ...
When fuels are incompletely burnt, they release carbon monoxide gas into the atmosphere. ...
The combustion of fossil fuels also releases a large amount of carbon dioxide into the atmosphere. ...
The burning of coal and diesel releases sulphur dioxide gas. ...



Recap what global warming is.
How can the effects of global warming be reversed?
BBC Bitesize: <https://www.bbc.co.uk/bitesize/articles/z4q3f82>
Distribution of the world's natural resources:



What problems does this cause? What impact does it have on us? (Current high fuel prices)
What is renewable energy?
Renewable energy is a natural source of energy that will never run out. Wind, the Sun and water are renewable energy sources that can be used to create electricity.

What are the different types of renewable energy?

Wind, the Sun and water are renewable energy sources that can be used to create electricity. There are different types of renewable energy:

Hydroelectric dams generate electricity by passing huge amounts of water through turbines. Hydropower - uses energy from moving water to drive turbines and generate electricity. Hydro-electric power schemes use water stored in dams.

Tidal and wave energy can also be used to drive turbines.

Solar energy - solar panels collect energy from the Sun to create electricity.

Wind turbines. Wind turbines work best in open places where no obstacles block the wind. They are often grouped together into large wind farms. Exposed hilly areas are good locations for wind farms, as winds tend to be stronger and more constant. Offshore locations also work well because there is nothing to block or slow down the wind. Some people object to the appearance of wind farms, so their visual impact needs to be considered. Wind turbines can disturb wildlife and be dangerous to migrating birds if they are not carefully positioned.



What is sustainability?

Sustainability is the idea that humans must interact responsibly with the Earth and its environment in a way that ensures that there will be enough natural resources left for future generations. To be sustainable means there must be ecological balance. This means that there needs to be sufficient natural resources for humans without having an impact on living things and the environment. The idea of sustainability involves us making choices to only use resources that our Earth can provide.

Sustainable solution: Renewable energy harnesses Earth's natural sources of energy e.g. water, wind and solar. These energy sources do not deplete and therefore cannot be used up.

In 2021 approximately 35% of the UK's energy was generated from renewable sources.

Habitats of all kinds are being destroyed by climate change. Animals, plants and ecosystems are all affected by this but what are the effects on us?

Look at the picture of a polar bear below. Why is the polar bear floating on an iceberg? Where is he going and what will happen to him?

Polar bears are seal-hunting, ice-dependent predators. They face natural and manmade threats, like poaching, oil spills and pollution. Because of ongoing and potential loss of their sea ice habitat resulting from climate change-the primary threat to polar bears Arctic-wide-polar bears were listed as a threatened species in the US under the Endangered Species Act in May 2008. This has become an urgent issue for the World Wildlife Fund (WWF). What is the WWF?

Arctic polar bears face extinction within decades BBC News:

<https://www.bing.com/videos/search?q=the+effects+of+global+warming+on+polar+bears+KS2&view=detail&mid=A0C3163931E194570811A0C3163931E194570811&&FORM=VRD&ru=%2Fvideos%2Fsearch%3Fq%3Dthe%2Beffects%2Bof%2Bglobal%2Bwarming%2Bon%2Bpolar%2Bbears%2BKS2%26FORM%3DHDRSC6>

The effects of global warming on other animals video:

<https://www.bing.com/videos/search?q=the+effects+of+global+warming+on+polar+bears+KS2&view=detail&mid=3DFC550E0CCD3553D3063DFC550E0CCD3553D306&&FORM=VRD&ru=%2Fvideos%2Fsearch%3Fq%3Dthe%2Beffects%2Bof%2Bglobal%2Bwarming%2Bon%2Bpolar%2Bbears%2BKS2%26FORM%3DHDRSC6>



What is the bee doing? How important are plants for sustainability? What would happen without flowers? What is happening to bees?

Why are bees important video: <https://www.youtube.com/watch?v=LmBUq103u-M> and https://www.youtube.com/watch?v=-Jsm7_Z-0Qo

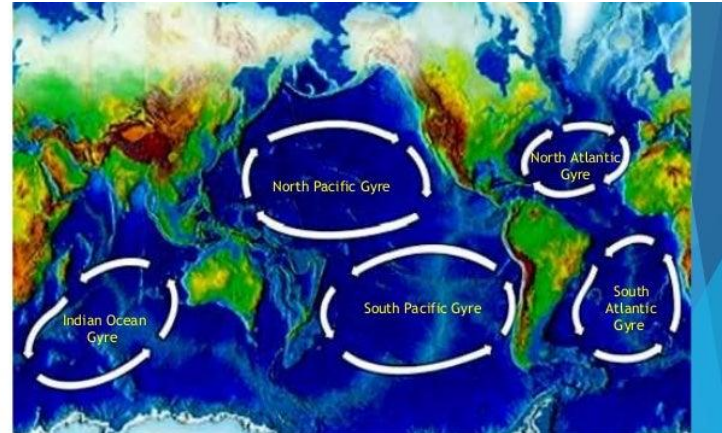
Bees are an essential part of the ecosystem and play a vital role in pollinating plants. However, bee populations around the world are in decline. There are several reasons for this, including habitat loss, pesticide use, and disease. This is having a devastating impact on the environment and food supply. Bees and other pollinators are declining in abundance in many parts of the world largely due to intensive farming practices, mono-cropping, excessive use of agricultural chemicals and higher temperatures associated with climate change, affecting not only crop yields but also nutrition.

What are the effects of plastic pollution in our oceans?

BBC Bitsize plastic pollution: <https://www.bbc.co.uk/bitesize/articles/z4d62v4> and <https://www.bbc.co.uk/bitesize/articles/zrvhtrd>

WWF video and information: <https://www.wwf.org.uk/get-involved/schools/oceans-and-plastics>

What is a gyre?



Plastic pollution in the ocean is a huge and growing problem that affects marine life, ecosystems, and human health. Every year, about 8 million metric tons of plastic enter the ocean from landfills, littering, and drains. That's like dumping 90 aircraft carriers of plastic into the sea. Plastic items can harm animals by suffocating, entangling, lacerating, or injuring them. Some animals also mistake plastic for food and ingest it, which can cause internal damage or starvation. Plastic also absorbs and releases toxic chemicals that can accumulate in the food web and affect the organs, reproduction, and immunity of marine organisms and humans who consume them. Plastic pollution in the ocean lasts long, forms micro-plastics, and harms marine life. Plastic pollution in the ocean is a global challenge that requires urgent action from governments, businesses, and individuals to reduce, reuse, and recycle plastic, and to clean up the existing mess.

Why should we recycle? Are wheelie bins and recycling sacks effective? How do we recycle in school? In our local community?



What is the United Nations Climate Change Conference? <https://www.un.org/en/climatechange/cop27>


The United Nations Climate Change Conferences are yearly conferences held in the framework of the United Nations Framework Convention on Climate Change (UNFCCC).

What is soil erosion and how is it affecting our planet, environment and landscapes?

Watch this Learning Junction video:

<https://www.bing.com/videos/search?q=soil+erosion+KS2&&view=detail&mid=2031F993359254253E0C2031F993359254253E0C&&FORM=VRD6AR&ru=%2Fvideos%2Fsearch%3Fq%3Dsoil%2Berrosion%2BKS2%26FORM%3DHDRSC6>

The effects of soil erosion go beyond the loss of fertile land. It has led to increased pollution and sedimentation in streams and rivers, clogging these waterways and causing declines in fish and other species. And degraded lands are also often less able to hold onto water, which can worsen flooding.

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| | | <p>Sustainable solutions: Crop rotation - growing different types of plants each year allows soil to replenish the nutrients that it has lost from growing one type of plant. Agroforestry - combining farming livestock and crops with growing trees. These trees help to protect the plants and maintain the quality of the soil. Organic farming - a type of farming that does not use fertilisers or pesticides, which can damage the quality of the soil.</p>  <p>What is air pollution? Air pollution is when harmful gases or particles get into the air we breathe. There are lots of things which can make air 'dirty', for example fumes from traffic and vehicles, power stations. There are many different types of air pollutants, such as gases, particulates, and biological molecules. Air pollution can cause diseases, allergies, and even death to humans; it can also cause harm to other living organisms such as animals and food crops, and may damage the natural environment or built environment. Air pollution can be caused by both human activities and natural phenomena. Which world cities have the worst air pollution? Why? Air quality of different world cities comparison site: https://www.iqair.com/world-air-quality-ranking Air pollution News Report: https://www.bing.com/videos/search?q=which+cities+have+the+worst+air+pollution%3f&view=detail&mid=D869E571634D029EDEB8D869E571634D029EDEB8&FORM=VIRE Seattle air pollution (caused by forest wild fires): https://www.bing.com/videos/search?q=which+cities+have+the+worst+air+pollution%3f&view=detail&mid=881242F8F86E6B85F983881242F8F86E6B85F983&FORM=VIRE What can be done to reduce air pollution?</p> |
| <p>Using (Applying & analysing)</p> | | <p>With 7 billion people on the planet, the demand on Earth's resources continue to increase. Overconsumption and waste. This is the excessive and unnecessary use of resources. Deforestation and the Destruction of Ecosystems leading to loss of biodiversity. Mining of Minerals and Oil. Technological and Industrial Development. Erosion. By 2050 the world could have changed in the following ways: The world population is likely to from close to 7 billion to 8 to 10 billion. One in every 6 people will be 65 years old or over. CO2 levels will be twice the level they were in the 1800. Solar power could generate around one quarter of the world's energy Nearly half of the Amazon Rainforest could be destroyed. The final reserves of oil will have been extracted in the Middle East. Class discussion: If these changes come true what might be the impact of these changes to both the planet and our way of life?</p> |
| <p>Concluding (Evaluating & summarising)</p> | | <p>Humans impact the physical environment in many ways: overpopulation, pollution, burning fossil fuels, and deforestation. Changes like these have triggered climate change, soil erosion, poor air quality, and undrinkable water. These negative impacts can affect human behaviour and can prompt mass migrations or battles over clean water. How can we live more sustainably in order to protect the future of our planet Earth? Children write a persuasive piece about the importance of sustainability.</p> |