



Portfields Primary School Medium Term Plan

Year Group – 6

Subject - **Geography**

Topic – **Protecting the environment**

Term – **Spring 1**



National Curriculum	Key Questions		Substantive Knowledge	Key Vocabulary	Real-Life Links	
<ul style="list-style-type: none"> - Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities. - Describe and understand key aspects of physical geography, including climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle. - Describe and understand key aspects of human geography including types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water. - Use the eight points of a compass, four/six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world. - Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies. 	<ul style="list-style-type: none"> ● Are we damaging our world? ● What are minerals, and do we have an endless supply? ● Where does our energy come from? ● Why should we protect our oceans? ● How can we be more sustainable in school? 		<ul style="list-style-type: none"> ● Can identify some ways biomes (including the oceans) are valuable, why they are under threat and how they can be protected. ● Can describe key aspects of human geography including economic activity (e.g. the distribution of natural resources including timber). ● Can identify and justify deforestation as an environmental issue. ● Can describe where our energy and natural resources come from. ● Can identify as environmental issues, and begin to explain, several threats to wildlife/habitats (e.g. deforestation). 	<p>Renewable Non-renewable Fossil fuels (oil, gas, coal) Ocean (Pacific, Arctic Southern, Indian, Atlantic) Recycle Waste</p>	<ul style="list-style-type: none"> - Recyclable materials and anything we recycle at home. - Where we get our energy from and what we use energy for. - How the school is sustainable. 	
	Technical Questions				Technical Vocabulary	Fieldwork opportunities
	<p>What are minerals? <i>The substances that are naturally formed in the earth by the geological process and are inorganic, usually solid and have a crystal structure are called minerals. Examples of minerals are Coal, Iron Ore, Manganese, Copper, Zinc, etc</i></p> <p>Where does energy come from? <i>Oil, followed by coal, gas, and then hydroelectric power. This includes hydropower, wind power, nuclear power.</i></p> <p>What is sustainability? <i>Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs.</i></p>	<p>How can we protect our oceans? <i>Use less plastic, reduce your carbon footprint, respect marine life, reduce energy and teach and learn about it.</i></p> <p>How can we be sustainable in schools? <i>Recycle, reduce water usage, turn electronics/light off when not in use, using compost bins.</i></p>				
	Orange paper			Disciplinary Knowledge	<p>Mineral Wind power Biomass Wave energy Geothermal energy Hydroelectricity Tidal energy Solar energy Marine Endangered species Sustainability Enquiry Biodiversity</p>	<p>There are opportunities for fieldwork within the school grounds, looking at how the school grounds can be made more attractive to wildlife and investigating how sustainable the school is, and suggesting areas for improvement. The children can pose their own specific enquiry question, before collecting evidence from around the school.</p>
<ol style="list-style-type: none"> 1. Name two threats our planet is facing. Pollution, deforestation, climate change, rising sea levels etc. 2. How can we improve the health of our planet? Saving energy e.g. turning lights off when not in use, walk, and bike or take public transport, reduce, reuse, repair and recycle and prevent food wastage. 3. What are minerals? Minerals are the substances that are naturally formed in the earth by the geological process. 4. Give two examples of minerals. Coal, oil, seashells, diamonds, rubies, gold, copper, aluminium, iron etc. 5. What is geothermal energy? Renewable energy powered by heat within the earth. 6. What does MPA stand for? Marine Protected Area. 7. How can schools be sustainable? Recycling, reducing water usage, switching energy off when not in use, using compost bins. <p>NB: <i>If, after completing the orange paper assessment, you find a large amount of your pupils lack understanding of one particular star knowledge, you should adapt the flashback four questions for "Last Topic" in the next topic, in order to give you time to re-visit this. Please speak to the subject lead to discuss how to do this before editing the questions.</i></p>		<p>Can identify and locate a national or international environmental issue and explain why it is an issue. Can use fieldwork (e.g. in a forest or woodland) to observe, describe and record the environment and create a sketch map, using symbols and key.</p>				

		Can present information gathered in fieldwork using a range of graphs and other simple forms, including digital.		
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Lesson Breakdown

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
<p><u>Learning Objective</u> LO: To understand the threats to the health of our planet and some possible solutions.</p> <p><u>Success Criteria</u></p> <ul style="list-style-type: none"> I know that there are threats to the health of our planet. I can explain several threats to wildlife and/or habitats. I understand that there are ways to help improve the health of our planet. 	<p><u>Learning Objective</u> LO: To understand what minerals are and question if they can be used sustainably.</p> <p><u>Success Criteria</u></p> <ul style="list-style-type: none"> I know the sources of several important minerals used in everyday life. I can explain where minerals can be found around the world. I understand some of the ways in which minerals can be used sustainably. 	<p><u>Learning Objective</u> LO: To understand the different types of energy available, and their advantages and disadvantages</p> <p><u>Success Criteria</u></p> <ul style="list-style-type: none"> I know that there are both renewable and non-renewable energy sources available. I can explain the carbon cycle. I understand that no one type of energy production is the solution providing the world's energy. 	<p><u>Learning Objective</u> LO: To understand the importance of protecting the oceans.</p> <p><u>Success Criteria</u></p> <ul style="list-style-type: none"> I know how humans rely on the oceans. I can describe some of the threats to our oceans. I understand some of the advantages of Marine Protected Areas (MPAs). 	<p><u>Learning Objective</u> LO: To carry out an enquiry into sustainability.</p> <p><u>Success Criteria</u></p> <ul style="list-style-type: none"> I can pose an enquiry question. I can plan and carry out an enquiry into sustainability in school. I understand some of the ways in which I could make my school more sustainable.

<p align="center">Star knowledge</p> <p>Our planet is facing many threats such as climate changes and deforestation. We can improve the health of our planet by saving energy e.g. turning lights off when not in use, recycling and prevent food wastage.</p>	<p align="center">Star knowledge</p> <p>Minerals are the substances that are naturally formed in the earth. Examples of minerals include coal, oil and iron. We can use minerals sustainably by recycling old items and find smarter ways to get and use them without harming nature.</p>	<p align="center">Star knowledge</p> <p>Renewable energy sources are clean, endless and good for nature. However, they often cost more to set up and can depend on the weather.</p> <p>Non-renewable energy sources can be easy to get, cheap and powerful, but they can run out and many pollute our air.</p>	<p align="center">Star knowledge</p> <p>A marine protected area (MPA) is a space in the ocean where human activities are more strictly regulated than the surrounding waters.</p>	<p align="center">Star knowledge</p> <p>Schools can be sustainable by recycling, reducing water usage, switching energy off when not in use, using compost bins.</p>
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Flashback Four

<p>Last lesson How can the rainforest be protected? <i>Reduce paper and wood consumption, reduce oil consumption, reduce beef consumption, hold businesses accountable, invest in rainforest communities, support the grassroots.</i></p>	<p>Last topic List three facts you know about The Amazon rainforest. For example, <i>The Amazon is the world's largest tropical rainforest, the rainforest spans over 9 different countries, the Amazon has an incredibly rich ecosystem, the Amazon River is the largest river in the world, the Amazon Rainforest is considered the 'Lungs of the Earth'.</i></p>	<p>Last lesson Name some of the threats facing our planet. <i>Climate change, rising sea levels, pollution, deforestation, over population, water pollution.</i></p>	<p>Last topic What city is at the heart of The Amazon? <i>Manaus</i></p>	<p>Last lesson What are minerals? <i>The substances that are naturally formed in the earth by the geological process and are inorganic, usually solid and have a crystal structure are called minerals. Examples of minerals are Coal, Iron Ore, Manganese, Copper, Zinc, etc</i></p>	<p>Last topic What are the two seasons in The Amazon rainforest? <i>Dry and wet</i></p>	<p>Last lesson What is the difference between renewable and non-renewable energy? Renewable resources can naturally replenish themselves whilst non-renewable cannot.</p>	<p>Last topic Name two animals that live in The Amazon. <i>Sloth, jaguar, toucan, poison dart frog, cougar, electric eels, spider monkeys, armadillo etc.</i></p>	<p>Last lesson What are some of the threats to our oceans? <i>Pollution, oil spills, fishing gear, ocean noise, commercial whaling.</i></p>	<p>Last topic What does 'The Amazon' refer to? <i>The Amazon is a vast region that spans across nine countries: Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana, Suriname and French Guiana, an overseas territory of France.</i></p>
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<p>Last year What are the advantages of tourism to the Alpine community? <i>Tourism can provide significant economic benefits to ski resorts and surrounding communities, providing employment opportunities, generating tourism revenues and stimulating local businesses.</i></p>	<p>Previous key stage What is the climate in a tropical rainforest? <i>Hot and wet all year round.</i></p>	<p>Last year What animals can be found in The Alps? <i>Bears, deer, foxes, wolves, golden eagles.</i></p>	<p>Previous key stage If the climate gets hotter how might it affect our daily lives in the UK? <i>If it is really hot, it can even melt road surfaces and bend railway lines. Higher temperatures affect plants and animals too. Some plants, like a tomato plant, will wilt if temperatures are too high and many animals struggle if it gets too hot.</i></p>	<p>Last year How do avalanches affect the landscape? <i>Flattening trees on the hillside, and in the process, destroying the ecosystem and killing plants, animals, insects, and unfortunately sometimes people.</i></p>	<p>Previous key stage What natural features can be seen beside the seaside? <i>The beach, sea, cliffs and caves.</i></p>	<p>Last year Where is cotton fabric mainly produced? <i>China, India and the United States.</i></p>	<p>Previous key stage What are tectonic plates? <i>The earth's surface is called the crust. It is made up of different rocky sections called tectonic plates.</i></p>	<p>Last year What happens to our old clothing? <i>Some clothes can be reused or recycled whereas others end up in landfills or in bodies of water.</i></p>	<p>Previous key stage What is the purpose of the Thames barrier? <i>To protect the floodplains of most of Greater London from exceptionally high tides and storm surges moving up from the North Sea.</i></p>