

Project: A geographical study of the dangers which our planet faces and how we can help to prevent them.

The British Values I will be demonstrating and deepening my understanding of will be: Democracy
Mutual Respect Tolerance



By the end of this project, I will know the answers to these questions	
What is physical geography? What is human geography?	Physical geography is the branch of geography which deals with natural features such as rivers and mountains. Human geography is the branch of geography dealing with how human activity affects or is influenced by the Earth's surface including settlements, roads etc.
What are the continents and oceans of the world?	Continents: North America, South America, Africa, Europe, Antarctica, Asia, Australia Oceans: Pacific, Southern, Indian, Atlantic, Arctic
What is a biome and why are they important?	A biome is a large naturally occurring community of flora and fauna occupying a major habitat, e.g. forest or tundra. They are important to the ecosystem because they are a part of the food chain/web; biomes are different types of habitat areas for different types of animals/plants who need a specific climate to stay alive
What are the environmental threats to our planet?	Climate Change - Heatwaves, droughts, flooding, storms, decrease in crop yields and rising sea levels are all the effects of climate change. Deforestation - This is one cause of climate change but is also responsible for reducing oxygen in the atmosphere and displacing wildlife. Pollution - Air pollution is the World's largest health risk. It poisons soil and waterways, kills plants and harms humans and animals. Oceanic Dead Zone - These occur when oxygen in water falls so that marine life cannot live. These are often caused by chemicals in water. Over Population - As the human population increases, this puts a stress on the environment and natural resources. Over Fishing - As a result of this many fish are on the brink of extinction. This has also reduced biodiversity.
What types of energy are available? What is the difference between renewable and fossil fuels?	Renewable resources can be used instead of finite resources e.g.: tidal, wind or solar power instead of fossil fuels such as coal and oil formed from decaying organisms. The difference between renewable and fossil fuels is that renewable energy will never be used up because it is formed by naturally occurring phenomenon whereas when fossil fuels are used they are not renewable.
Can minerals be used sustainably?	The world's natural resources have conflicting demand on them and are difficult to manage. As minerals are finite, they need to be used carefully to slow down their usage. As a result, Scientists are looking for other ways of producing energy whilst balancing the need for humans to live comfortably. Recycling is an example of reducing waste and therefore reducing the need to use extra resources.
Why do we need to protect our Oceans?	The oceans cover 70% of the earth's surface and contain 99% of living space on earth. Without this space there would be a significant reduction in the number of animals and plants on earth, causing issues for the bio-diversity of the planet. Oceans are also a source of oil/natural gas and minerals which are in short supply. Warm ocean water provides the energy to fuel storm systems that provide fresh water, vital to land dwelling animals and organisms.
Why is it important to prevent the polar ice caps melting?	The polar ice caps help keep Earth a nice temperature, but the melting of polar ice caps increases the rate of global warming. Maintaining the Earth's temperature is very important to all the organisms that live in or around the polar ice caps. If all the ice covering Antarctica, Greenland, and in mountain glaciers around the world were to melt, sea level would rise about 70 meters (230 feet). The ocean would cover all the coastal cities. And land area would shrink significantly.
What is a rainforest and why are they so important?	Rainforests are a kind of forest habitat. They are found in warm places, and are full of many tall trees and leafy plants. It's called 'rainforest' because it also gets a lot of rain every year, helping all the plants grow. Because rainforests are warm, wet and dense, they are full of life - millions of different kinds of plants and animals live there, and some haven't even been discovered yet! It's important to protect rainforest habitats for all the creatures who live there, and for humans too; rainforests produce 20% of the oxygen that all of us in the world need to breathe.
Greater Depth	Using evidence and data to support your answer. What is the most crucial area to resolve first? How can we develop a way to combat all of the dangers our planet is facing?

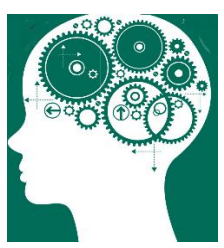
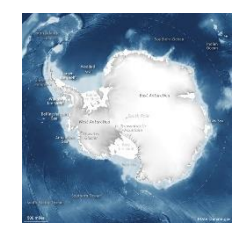


Skills I will require and apply:

- Research using books and the internet
- Comprehension of different text types
- Geographical skills to locate key locations
- Analysing evidence of dangers to our planet
- Use primary and secondary sources of evidence
- Collect and record evidence and analyse it to draw conclusions.
- Use OS maps and describe the features shown on them.
- Locate places on a world map and use topographical information to find further features.
- Recognise world maps as flattened globes.
- Use relative vocabulary to describe human and physical features in great detail.
- Describe and understand key aspects of physical and human geography

To hook me into this project I will:
Educational visit to local recycling plant
Experiences that will help me remember:
Leaflets, presentations and posters to persuade people in our local area to recycle.

Vocabulary	Tier 2 and Tier 3		
Climatic extremes - the confluence of high impact weather and climate variability.	Physical feature - naturally occurring feature e.g. rivers and mountains	Wave energy - the capture of energy from ocean surface waves for electricity generation	Settlements - a place, typically one which has previously been uninhabited, where people establish a community.
Fossil Fuel - buried organic material from decayed plants and animals that have been converted to oil, coal and gas over hundreds of millions of years.	Recycled - discarded or end-of-life items converted into a reusable item or material	Wind power - energy extracted from wind using wind turbines to produce electrical power	Climate change - a change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels
	Global Warming - a gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants.	Ocean Currents - a continuous, directed movement of sea water generated by a number of forces acting upon the water, including wind, the Coriolis effect, breaking waves, churning, and temperature and salinity differences.	Deforestation: Deforestation is when forests are destroyed by cutting and not replanted. Sometimes deforestation happens when people change the land into farms, ranches and cities. Without the forest, the habitats of the animals are lost and many animals die. It also results in global warming
Human feature - created by humans e.g. roads, houses and canals	Renewable energy - energy source that will never be used up	Biomes	a large naturally occurring community of flora and fauna occupying a major habitat, e.g. forest or tundra.
Hydro-electricity - electricity that is created by the flow of water	Solar energy = sunlight into electricity	Biomass	biological material derived from living, or recently living organisms
Mineral - a solid substance with no origin as a previous life form	Sustainability - ability to maintain balance between natural ecological systems through not harming the environment or using up resources that will run out	Vegetation belts	area with distinct plant types, determined by climate, soil, drainage, and elevation. There are five major vegetation regions: forest, grassland, tundra, desert, and ice sheet
Non-renewable energy - energy from a source that can be used up and no longer be available	Tidal energy - a form of hydropower that converts the energy of tides into useful forms of power		



Texts/books I will be using in this project:

Energy Technology	Pollution	Nature (Answers to 1001 questions)
The crowded cities	Habitats	Cruel sea Children's Atlas
Endangered animals	Evil Ecosystems	Up a Rainforest tree
Recycling	Exploring the secrets of nature	Cool Facts Planet Earth
Horrible Geography of the World	Rock & Mineral	Essential Atlas of the world
Energy Forces & Motion	Energy	Encyclopaedia of Planet Earth

Life Skills

Persistence Well-being Health Resilience

Empathy Respect Responsibility Right and wrong

Metacognition

What am I being asked to do? Which strategies will I use? Are there any strategies that I have used before that might be useful?