



Autumn Term 1

Whole School topic 'Earth Matters'- Year 6 Sustainability - Alternative Energy Sources

History	Geography	Art	Design and Technology
	<p>Children will:</p> <ul style="list-style-type: none"> • Learn about what fossil fuels are and where they come from. • Learn about the term 'sustainability' and how it relates to developing a 'greener' planet. • Learn about what is being done in the UK to reduce our use of fossil fuels. • Learn how countries around the world have become more sustainable. • Learn about the advantages and disadvantages of sustainable energy production. • Learn what our school can do to become more sustainable. 		<p>Children will:</p> <ul style="list-style-type: none"> • Work collaboratively to identify how they can fulfil the needs of the inhabitants of their city. • Use inspiration from other cities around the world to include in their city planning. • Work collaboratively to plan their sustainable city. Produce a plan drawing to scale with a key. • Include their research of other sustainable cities in their plans. Draw an exploded diagram. • Create a 3D building for their city. • Draw landmarks and features e.g. rivers around their 3D models. Recognise the essential things that are needed for a city and its inhabitants to survive. • Understanding the word sustainability and how cities need to be more sustainable, create a carefully considered city charter. • Identify how inhabitants of cities all need to work together to create a more sustainable city. Produce and present a city charter to the class.

Key drivers of the curriculum

Aspirations	Global citizenship	Wellbeing
<ul style="list-style-type: none"> • DT – Designing a sustainable city. • Geography – Renewable energy solutions – career opportunities in science, technology and engineering. 	<ul style="list-style-type: none"> • The impact of our actions on the environment. • Becoming a more informed consumer. 	<ul style="list-style-type: none"> • Making a positive impact on the environment both at home, school and in the local community.

Core links through the curriculum.

Basic Skills

Real World Applications

English	Numeracy	Using Technology including Computer Science	Science
<p>Key texts</p>	<ul style="list-style-type: none"> • DT – Measuring materials when cutting • Geography – Calculating total number of air miles by a particular product 	<ul style="list-style-type: none"> • Researching sustainable energy solutions and how they are designed. 	<ul style="list-style-type: none"> • Learning about living things and their habitats, linking to any environmental problems that animals may face
<p>Writing opportunities</p> <ul style="list-style-type: none"> • Creating City Charter • Letter to Yorkshire businesses regarding sustainable energy production/commitment 			
<p>Reading opportunities</p> <ul style="list-style-type: none"> • Sustainable energy solutions research using computers/iPads 			

Objectives	Activities
Geography:	
<p>I can understand where our energy and natural resources come from</p> <p>I can explain some ways biomes (including the oceans) are valuable, why they are under threat and how they can be protected.</p> <p>I can explain several threats to wildlife/habitats.</p>	<ul style="list-style-type: none"> - Analyse use of fossils fuels vs renewable energy - Learning about what some countries have done to become more sustainable - Explore the impact of over-use of Earth's natural resources - Explore why some countries are better suited to producing renewable energy than others - Explore our own use of natural resources in school and conduct a survey
ICT:	
<p>I can collect information and media from a range of sources</p>	<ul style="list-style-type: none"> - Research different types of sustainable energy production and designs
D&T	
<ul style="list-style-type: none"> - I can identify the needs and wants and preferences of a market - I can justify my plans and ideas. - I can compare ideas to an original design brief. - I can make refinements to the product. - I can investigate cost, innovation and sustainability. - I can make a product which demonstrates an understanding of computer programming to program, monitor and control products - I can include an electrical circuit that produces more than one outcome (e.g. light and sound) - I can use a screwdriver to secure materials with accuracy 	<ul style="list-style-type: none"> - Children to design and create their very own Green City which incorporates as many elements of sustainability as possible. Children should use their knowledge of renewable energy and all forms of pollution to create as green a city as possible. Children will also create a charter for inhabitants of their city to abide by.