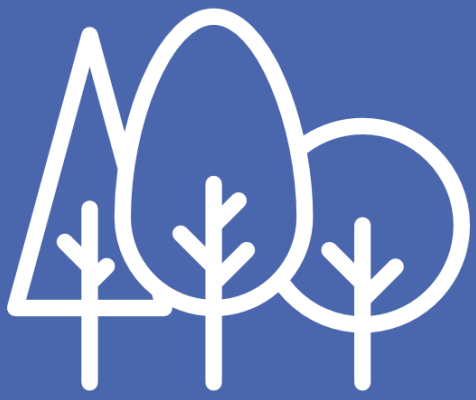
NURTURING NATURE:
Appreciating God's Creations

Focus Overview



At Our Lady and St. Hubert's, home, school and parish work together, knowing that God is with us in all we do

YEAR 4:

Nurturing Nature: Engaging and Taking Responsibility
Year 4 – Energy

Throughout this focus, children will learn about the importance of nurturing nature with a specific focus on energy and its role in nature.
Through **Science** children will understand different sources of energy while exploring how these have changed over time. They will also explore in more detail the impact of energy sources on our environment.
Children will complete an **Enquiry Project** where they will explore the importance of sustainable energy to the human-race while also exploring the dangers of climate change. This knowledge and exploration of the importance of sustainable energy will the lead their **Application** project where they will research, plan and eventually present their ideas on how to make school more energy sustainable.
Through ***Geography*** children will explore renewable and non-renewable energy and understand how hydroelectric power and wind power is generated. Children will understand how the sun generates Solar Energy and how energy usage has changed over time. Towards the end, children will explore how our school can become more energy sustainable.
Finally, in ***English*** we will be writing debate texts about wind farms, forming arguments for and against the idea of wind farms being built on Barnford Park. We will also write a persuasive letter to Senior Leadership and Governors with ideas about how we can make the school more environmentally friendly.

Theme Impact

Children will have a deeper understanding of the impact of our actions on our planet, in particular the use of different sources of energy. They will understand why it is crucial to use renewable energy sources and live a more sustainable life. Pupils will use creativity to create logical plans and solutions to the problem of non-renewable energy and sustainable living.

Catholic Social Teaching

Stewardship of God's Creation

Children will develop their understanding of God's creation. They will discuss creating a more sustainable world for the good of others, remembering that together we are working together to build and care for God's kingdom. They will continue to explore the teaching of God's creation to create a more sustainable world.

Curriculum Drivers

Science

National Curriculum Objectives

Solids, liquids and gases

- Compare and group materials together, according to whether they are solids, liquids or gases
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Knowledge and Skills Progression

Working Scientifically

- compare and group materials together, according to whether they are solids, liquids or gases
- grouping and classifying a variety of different materials;
- exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party).
- research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid.
- observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.

E3: making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
E4: gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

E7: using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Enquiry Project

National Curriculum Objectives

How can we become more energy sustainable? (3 weeks including the application week)
Application in this theme will be through the enquiry project. Children will have a number of opportunities to explore the 6Cs, eventually presenting their work on how we can become more energy sustainable at school. They will outline their reasons as to why they agree or do not agree with the statement, using information from both primary and secondary sources. Children will also present solutions to the problems they have found and how they could 'save' humanity.

DT

National Curriculum Objectives

CAMS Toy

- Children will understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]

Knowledge and Skills Progression

- D1- Use their research to develop some of their own design criteria.
- D2 - Draw a fully labelled sketch/diagram of their product, including some measurements
- MC3 - Testing- Test their product as they work, making informed adjustments to ensure their product meets the design criteria.
- E2- Critique- Identify any areas for development/ improvements that could be made.

Prior learning:

- **D1**- Use their research to develop some of their own design criteria.
- **D2**- Draw a fully labelled sketch/diagram of their product, including some measurements.
- **MC3**- Testing- Test their product as they work, making informed adjustments to ensure their product meets the design criteria.
- **E2**- Critique- Identify any areas for development/ improvements that could be made.

Geography

National Curriculum Objectives

Renewable and non-renewable energy

- Describe key aspects of human Geography
- Understand how human characteristics have changed over time

Knowledge and Skills Progression

- PK1: Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a study from the wider world
- HPG1: Physical geography, including: rivers, volcanoes and earthquakes, and the water cycle and extreme weather events
- HPG2: Human geography, including: types of settlement, population, employment and land use

Prior learning

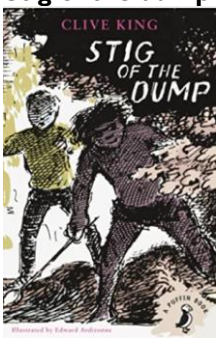
- **PK1:** Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom.
- HPG1: Physical geography, including: rivers, volcanoes and earthquakes, and the water cycle and extreme weather events
- HPG2: Human geography, including: types of settlement, population, employment and land use.

Application

Our application week will tie in with our enquiry project over a 3 week project. See above for our application.

Wider Curriculum Opportunities

Writing	Reading
Debate Text	**Reading Explorers – How the sea become salty**

Children will explore the structure of a debate text and will understand that there are for and against arguments. They will research the issues surrounding wind farms and will write a discussion text about whether or not wind farms should be built on Barnford Park. **<u>Persuasive Letter</u>** Children have explored different types of persuasion and this time are focusing on how to write a persuasive letter. They will explore the structure and language features used within a persuasive letter. They will persuade a senior leader to set up eco-buddies within school who carry out a range of tasks to protect the planet.	**Reading Explorers – The story Stig of the dump** 
Nurturing Nature	
Information technology – Data handling Word processing **Digital Literacy** Health, wellbeing and lifestyle Privacy and security	

Stand-alone objectives to be covered this term
PE
Music
Rock and Roll
MFL
At the cafe
Cooking in the Curriculum
Fruit fool