



A WONDERFUL WORLD: Appreciating God's Creations

Focus Overview

Year 5 : River, Mountains and Hills

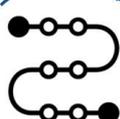
At Our Lady
and
St. Hubert's,
home, school
and parish
work
together,
knowing that
God is with
us in all we
do

A Wonderful World:
Appreciating God's
Creations



Peace and Conflict: Respect
for all Individuals

A Moment in Time:
Learning from the
Past for Our Future



We are Engineers:
Embracing Technology
to Solve problems

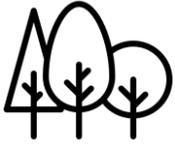
Nurturing Nature:
Engaging and Taking
Responsibility



**Our Place in the
World:** Identity and
Community



A Wonderful World: Appreciating God's Creations Year 5 – Rivers, Mountains and Hills



Throughout this focus, children will discover the beauty and importance of the world's rivers, mountains and hills – studying them from different focal points.

Through **Geography**, children will also describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle.

In **Science**, children will examine the properties of materials (including transparency, conductivity, hardness) using various tests, Investigate and justify the use of certain everyday materials, Identify the part played evaporation and condensation in the water cycle, look at solubility, recovering dissolved substances and separating materials and examine changes to materials that create new materials that are usually not reversible.

In **Computing**, children will select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

In **Art**, children will explore Van Gough's designs and produce a sketchbook with annotations of his own work.

Finally, in **English** children will produce non-chronological about which includes the information that will have researched and learnt regarding rivers, mountains and hills. Finally, Children will use enrichment trips to the Waseley Hills and the River Rae to inspire the use of personification and similes to bring our wonderful world to life and create some wonderfully descriptive and imaginative poetry.

Theme Impact

Children will investigate and understand water management while exploring the impact of pollution. They will investigate what we can do to reduce pollution and the importance of cleaning rivers. They will explore the water cycle while investigating the difference between soluble and insoluble liquids. They will gain an understanding of how some changes can be reversible while others are irreversible, using this knowledge to explore the impact of physical geography. They will collect data regarding water levels, the increase of pollution and explore how they can use a variety of computer software to present data through spreadsheets and graphs.

Catholic Social Teaching

Creation is a gift from God and provides us with these things, the basics for our lives, yet it can so easily and so often be taken for granted.

- Taking responsibility for water management, pollution and cleaning
- Explore our actions and how we look after our water
- Uniting with God through following careful actions to look after our water, ensuring it is clean and healthy
- What negative effects have human actions had?

Curriculum Drivers

Geography

Nation Curriculum Objectives

Physical Geography - Rivers including water management, pollution and cleaning - Rivers, Mountains, Water cycle, Water distribution

- Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle
- Name and locate the world's continents and main oceans. Identify the UK on a world map.
- Name and locate known countries: USA, Ireland, France, Spain, Russia
- Name and locate the UK's main cities, identifying their human and physical features.
- Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
- Use the eight points of a compass, four-figure grid references, symbols and keys (including the use of Ordnance Survey maps) to build knowledge of the United Kingdom and the world.

Knowledge and Skills Progression

GSF3: Use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch

HPGI: Physical geography including coasts and rivers, climate zones, and the water cycle including transpiration; mountains, climate zones, biomes and vegetation belts.

Key Vocab:

erosion, rivers, mountains, the water cycle, distribution of natural resources including energy, food, minerals and water, Settlement, land use, population, employment

Prior learning

GSF3: 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.

HPGI: Physical geography, including: rivers, volcanoes and earthquakes, and the water cycle and extreme weather events

Science

National Curriculum Objectives

Solids, liquids and gasses including the water cycle

- Examine the properties of materials (including transparency, conductivity, hardness) using various tests.
- Investigate and justify the use of certain everyday materials
- Identify the part played evaporation and condensation in the water cycle
- Look at solubility, recovering dissolved substances and separating materials
- Examine changes to materials that create new materials that are usually not reversible. Compare to reversible changes

Prior Learning

- Compare and group materials- according to whether they are solid, liquid or gas.
- Investigate the effect of heating and cooling of materials.

Knowledge and Skills Progression

- compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets
- know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
- give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic
- explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Working Scientifically Suggestions

- carrying out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?'
- observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes.
- research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such.

E1: plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.

E3: record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.

E5: report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.

Computing

National Curriculum Objectives

Spreadsheets

- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Knowledge and Skills Progression

- **CS4** Know how to read Cartesian (x, y) coordinates and use x, y motion blocks
- **CS7** Know that variables are data that can be held and altered in a program
- **DL8** I can explain why some information online may not be accurate, honest or legal
- **IT1** Use spreadsheets:
- **IT2** Understand the terms column, row and cell
- **IT3** Know that cells can contain different kinds of data

- **IT4** Know that spreadsheets can process lots of data quickly
- **IT5** Know how to create and edit graphs
- **IT6** Present data and use graphs
- **IT7** Combine with word processor document/ presentation

Prior learning

- CS4** Know how to design an algorithm including simple variables
- CS7** Know how to use operator blocks for calculating and evaluating in Scratch
- DL8** Identify online technologies were bullying might take place
- IT1** Know that computers store and process data as 1s and 0s (binary)
- IT2** Know that digital data can be manipulated
- IT3** Use graphics software to edit images
- IT4** Transfer files between tablet and computer
- IT5** Know how to search for information and iUseimages
- IT6** Know how to copy and paste images from the web into a presentation
- IT7** Know how to conduct an image search of the web

Application	
<p>Over time rivers, hill and mountains have become increasingly polluted as a result of human actions. How can we make a positive change and reduce our pollution?</p> <p>Children will work together in groups to design and create a campaign to help reduce pollution by writing letters to our local MP creating banners an posters to support their argument.</p>	
Wider Curriculum Opportunities	
Writing	Reading
<p><u>Non Chronological Report – Leaflet</u> Focusing on mountains and key facts about them, as well as diagrams</p> <p><u>Poetry - Free Verse</u> -Personification poems about rivers -Simile poems about volcanoes/ivers -Shape poem in the shape of a river flowing use a range of language features</p> <p><u>Narrative – Suspense/Mystery</u> -Idea of 2 characters being trapped in an erupting volcano or an avalanche on a mountain or in a current in a river. They need to unveil clues, which all build up to finally escape in a short time limit. Come across different challenges with characters along the way.</p>	<p>Kensuke’s Kingdom – Reading Challenge</p> <p>Poem - The River – Valerie Bloom</p> <p>Reading Explorers: Volcanoes, The North Wind Doth Blow and Avalanche</p> <div style="text-align: center;">  <p>Drifting Away</p> </div> <div style="text-align: center;">  <p>Rescue from the storm</p> </div>
Computing – application of previously taught skills	
Create spreadsheets and graphs on excel to present geographical data. They will use search engines to collect and analyse information and conduct basic image searches.	
Enrichment	
Waseley Hills and River Rae – children will explore different parts of the river from its source exploring how it changes as the river expands.	
Home Learning	

Rivers, hills mountains research

- Locate rivers
- Effects of pollution
- Research the water cycle
- Draw and label a river.
- Research and collect data about five different rivers, presenting data in tables and graphs.

Evaluation Notes**Stand-alone objectives to be covered this term****PE**

Dance (Unit 1)

Music**MFL****Cooking in the Curriculum**

Apple and parsnip soup

Art**National Curriculum Objectives**

Van Gough

- Develop and share ideas in a sketchbook and in finished products.
- Learn about the great artists, architects and designers in history

Knowledge and Skills Progression

- **E1** create sketch books to record their observations and use to review and revisit ideas.
- **P1** develop a painting from a drawing.
- **P4** mix and match colours to create atmosphere and light effects.
- **P5** identify, mix and use primary, secondary, complimentary and contrasting colours.

Prior learning

E1 create sketch books to record their observations and use them to review and revisit ideas.**P1** experiment with different effects and textures including blocking in colour, washes, thickened paint creating textural effects, adding depth and distance.**P5** name and mix primary colours, shades and tones.