


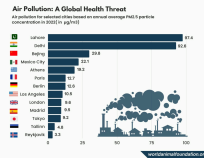




Environmental Change	How is our environment changing, and how can we help protect the future of our part of Wales?				
How do people affect the environment?	Essential Questions How do buildings, roads and farms change the environment? How do towns and cities affect nature?		What is pollution? How does litter affect the environment? Are all human changes harmful? How can small actions make a big difference?		
H&WB 	LLC 	Humanities 	M&N 	Sci&Tech 	Expressive Arts 
Why am I learning this?					
To help me to: Describe how physical health and mental health are affected by actions, feelings and environment. Assess and manage risks, and I can explain how to keep myself and others safe in different situations. Take action to support the health and wellbeing of others and the environment.	To help me to: Understand how texts can influence thoughts and actions. Gather, summarise and use information from different sources. write to explain and give information using clear structure and relevant detail. Plan writing using models, frameworks and story structures. Use descriptive and figurative language to create effect. Speak clearly to different audiences, explaining ideas and information.	To help me to: Use a range of sources to understand how places have changed over time Recognise how my actions and the actions of others impact my local environment. Explain how human actions can have positive and negative impacts on natural environments Describe how changes in transport systems affect the environment and society. Consider multiple viewpoints	To help me to: Collect data using lists, tallies and simple classification methods. Represent data using bar charts, tables and simple line graphs. Interpret and draw conclusions from charts, tables, comparative graphs and world maps. compare quantities using differences or percentages. measure using standard units with increasing accuracy.	To help me to: Describe how human activity can have positive and negative effects on the environment Plan and carry out fair tests and make predictions Describe how materials change over time and why these changes occur. Describe how substances dissolve, mix or react with water Explain the benefits and drawbacks of technological developments.	To help me to: Explore how artists communicate meaning through their work Analyse and compare how artists use materials, techniques and ideas. select and combine a range of materials, techniques and processes to communicate ideas. use the work of artists, craftspeople and designers to inspire my creative ideas. use digital tools and techniques to create and present creative work.

My learning experiences

<p>Outdoor wellbeing walks to notice nature and discuss how green spaces make us feel</p> <p>Explore physical health benefits of being in green spaces alongside impacts of pollution on health,</p> <p>Organise whole school pollution reducing events (e.g. litter pick, turning lights off, recycling plastic)</p> <p>Take action by carrying out a beach clean,</p>	<p>Explore the story of Sofia Valdez Future Prez. Children write their own version of how people take social action.</p> <p>Explanation text: Explain why microplastics are dangerous for river and sea animals.</p> <p>Bottle-to-Bay - write a story from the perspective of a plastic bottle that gets dropped in Queen street and journeys to Cardiff bay.</p> <p>If Rivers Could Speak..." Write poetry for younger pupils in the voice of River Taff a plastic bottle a seagull in Cardiff Bay</p> <p>Organise an exhibition for other year groups that shows what people locally and nationally are doing to improve the environment and reduce pollution.</p>	<p>Compare old/current photos/maps of Cardiff How has the land change impacted the environment?</p> <p>Create a litter Map of the school grounds - highlighting litter hot spots - what can we do?</p> <p>River study: How do plastics get into our oceans - explore the work Sian Sykes What happens when plastics get into the ocean? - Investigate the impact Cardiff transport initiatives (electric trains/trams/cycle lanes) will have on the environment.</p> <p>Explore advantages and disadvantages of electric cars. Consider the impact of introducing a congestion charge into Cardiff. What will the future of Cardiff look like?</p>	<p>Conduct a litter survey in the school grounds or nearby park. Sort litter into categories: plastic, paper, metal, organic - Create graphs to show findings.</p> <p>Analyse world data on air pollution - which countries have the worst/best? Why might this be?</p> <p>Measure air quality of classrooms and communal spaces around the school (using CO2 monitors) Compare data in pie charts/percentage grids Which places have the best air quality?</p>	<p>Pollution Detectives: Investigate Water pollution Noise pollution . Light pollution.</p> <p>"Plastic Detectives" – Microplastic Investigation - use plastic rubbish collected to investigate how larger plastic breaks down into microplastics.</p>	<p>Explore and analyse Artworks created using plastic and rubbish waste.</p> <p>Use Local Artist Nathan Wyburnt 'Plastic bottle' David Attenborough and Jacha Potgieter as inspiration for a "Trash to Treasure" – Recycled Sculpture Project using rubbish gathered on river banks / local area? Makers guild in wales</p> <p>Stop-Motion Animation: "A Plastic Bottle's Journey" (Digital Media)</p> <p>Art journey - pollution - see y6 sketchbooks</p>
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Suggested novels: LLC - Story Sofia Valdez Future Prez.
Suggested Launch School grounds litter survey and Litter map.
Suggested Landing Taking social action
Pupil voice opportunities: Mass Litter Pick, apply for a blue peter green badge

Learning experiences in more detail (for teacher reference)

What is pollution?

Learning experience: Pollution Detectives

Activity: Set up stations representing different kinds of pollution:

Air pollution – test air quality by wiping leaves/benches and comparing soot marks.

Water pollution – filter muddy water through natural materials (sand, gravel) to explore cleaning limits.

Noise pollution – measure noise levels around the school using tablets/phones with decibel apps.

Light pollution – compare Cardiff night sky visibility with rural Welsh sky photos.

Pupils rotate through stations and record findings.

AoLE Links:

Science & Technology – Materials, states and environmental change.

Health & Well-being – Understanding risks to health.

Mathematics & Numeracy – Measuring and recording simple data.

“Plastic Detectives” – Microplastic Investigation

Essential Questions: What is pollution? How does litter affect the environment?

Activity: Using magnifying glasses, pupils explore:

empty water bottles

crisp packets

plastic bags

plastic packaging

rub/shake items lightly and collect tiny flakes on black paper to observe microplastic formation.

Learning outcomes:

Understand how larger plastic breaks down into microplastics.

Explain why microplastics are dangerous for river and sea animals.

AoLE Links:

Science & Technology: Materials and how they degrade.

Health & Well-being: Environmental responsibility.

Are all human changes harmful?

Learning experience: Positive Change Gallery/exhibition

Activity: Create stations showing examples of positive human impacts:

Examples

Cardiff bike lanes

Cardiff's "One Planet" strategy

Wind farms in Wales

Rewilding parks and river improvements

Community gardens and bee-friendly planting

Create group posters: "Human Changes That Help the Earth."

Humanities – Evaluating human actions; ethical citizenship.

Science & Technology – Sustainability and renewable energy.