



All of these topics follow the statutory requirements of the National Curriculum.

	<p>Year 3</p> <ul style="list-style-type: none"> - increasing their familiarity with a wide range of books, and retelling some of these orally - preparing poems and play scripts to read aloud and to perform - opportunities to write for a range of real purposes and audiences 	<p>Year 4</p> <ul style="list-style-type: none"> - identifying themes and conventions in a wide range of books - drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence - in non-narrative material, using simple organisational devices 	<p>Progression of skills</p> <p>What pupils should know about climate change and sustainability by the end of Year 4</p>
<p>English</p> <p>Key vocabulary: Climate change, Atmosphere, Greenhouse effect, Greenhouse Gas emissions, Carbon emissions, Carbon dioxide, Fossil fuels, Renewable energy</p>	<p>How to Save the Whole Stinkin' Planet – <i>Lee Constable and James Hart</i>; A range of activities and comprehension questions from the publisher here. Make your own instruction booklet using this teaching resource and template from Twinkl.</p> <p>Save Our Planet - Musicals for Schools Complete with songs and plot, learn and perform this play to teach caring for the environment and respecting other cultures. Available here for £21.99.</p> <p>Environment and sustainability poetry</p> <ul style="list-style-type: none"> - Beautifully illustrated poems from a variety of authors, published by The Guardian. - Planning for outdoor learning and trees from the Forestry Commission - How to write haikus with environment-related examples from Twinkl - Wide selection of poems from The Poetry Society. <p>Greta and the Giants - <i>Zoe Tucker</i> Use this reading comprehension resource pack to support understanding about Greta Thunberg.</p>	<p>Stories for a Fragile Planet - <i>Kenneth Steven</i> Ten stories from different times and different places demonstrate the importance of looking after the earth and the creatures that live on it. Tales from ancient Greece, the Far East, the Celts, Africa, Greenland, Russia, China, Japan, South America, and ancient Israel. Identify the common theme between these stories. Use this resource from TES to support themes.</p> <p>Heroes of the Wild (series) - <i>Nicola Davies</i>; These books focus on children who live in countries where wild animals pose a threat, and on the solutions that will affect their lives and their future. Guided reading teacher resource for The Elephant Road. Guided reading teacher resource for The Lion Who Stole My Arm. Guided reading teacher resource for Walking the Bear. Guided reading teacher resource for The Whale Who Saved Us. Guided reading teacher resource for Manatee Baby</p> <p>What Is Climate Change? - <i>Gail Herman</i> Make your own information/explanation text using this teaching resource from Twinkl.</p>	<p>Pupils can identify actions that they can take personally to reduce emissions / promote carbon sinks</p> <p>Pupils can name different examples of how groups are taking climate action together and can talk about the outcomes.</p> <p>Pupils can name some of the things that they and others do that are responsible for climate change</p> <p>Pupils begin to explore alternatives to these activities which are less harmful</p>

Maths

Interpret and present data using bar charts, pictograms and tables; Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

- Monitor your class recycling using this [pictogram template](#). Present the findings in a bar chart.
- What questions could you create about your bar chart?

A home learning resource pack [on food miles is available here](#).

Round decimals with one decimal place to the nearest whole number; compare numbers with the same number of decimal places up to two decimal places; Interpret and present data using bar charts

- Explain carbon footprint using this resource from [Twinkl](#).
- Track and monitor your carbon footprint & lifestyle changes using lessons from the [Giki app](#).
- Present the carbon footprint of each activity into a bar chart.
- Compare and order carbon footprint per capita for different countries from the Giki app and [Earth Hero app](#).
- Present this information in a bar chart.

A home learning resource pack [on carbon footprint is available here](#).

Pupils understand that you can measure how much impact an activity has and know that different lifestyles have a greater or lesser impact

Pupils understand that some individuals and countries are more responsible than others for greenhouse gas emissions to date

Pupils compare the carbon footprints of people with a different lifestyle to them, including in other countries

Science

Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant;

Discover the role of trees, healthy soils and oceans as carbon sinks.

- [Play carbon cycle jenga with this resource](#).
- Lesson plan and resources from the [BBC on trees](#).
- Activities and diagrams about trees from [Kidzone](#).
- Explanations and activities about ocean carbon sinks from [NASA Kids](#).
- Explanation video about carbon sinks on [YouTube](#).

Recognise that soils are made from rocks and organic matter

Link to fossils and mining coal and gas.

- Wide selection of activities from [STEM UK](#)
- Fossil fuel mining activity from [Twinkl](#).

Recognise that environments can change and that this can sometimes pose dangers to living things.

- Blue Planet - Great introduction to topic. Children are given opportunities to think about the effect that global warming, plastic pollution and overfishing has on living things and how it affects the food chain. Supported by this learning resource from [Twinkl](#)
- Polar bears and climate change resource pack from [Teachwire](#).

Construct and interpret a variety of food chains, identifying producers, predators and prey

- Impact to the food chain if pollinators become extinct from [Bumblebee Conservation Trust](#).

Identify common appliances that run on electricity

- Consider life without electricity with this [Plazoom resource](#).
- Discover renewable energy with these [activities](#).
- Visit Green Park wind turbine. Contact [Ian Gough](#).
- Create your own wind power with planning and resources from [Practical Action](#)
- Try the Solar Challenge from [Practical Action for a STEM activity](#).

Pupils are familiar with the terms 'atmosphere', 'Climate Change' and 'greenhouse gas emissions'

Pupils know that some natural processes like trees growing, healthy soils and oceans take greenhouse gases out of the atmosphere.

Pupils can identify a range of impacts of past and / or present climate change on plants and animal species, including extinctions, and on environments locally and across the world

Pupils understand how using less energy can reduce emissions

Pupils understand what renewable energy is and can explain why it is important in reducing greenhouse gas emissions

	<p>Recognise that soils are made from rocks and organic matter</p> <ul style="list-style-type: none"> - Children must figure out how to create an irrigation system to re-green the desert STEM challenge from Practical Action. 	<p>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)</p> <ul style="list-style-type: none"> - Clear explanation of greenhouse gas emissions and the burning of fossil fuels from BBC Bitesize. - Planning and resources on this topic here. - Thoughtbox climate curriculum also covers this in PSHE. - This YouTube video helps to visualise carbon emissions and gas. 	<p>Pupils understand the importance of trees for the climate and can explain why protecting / replanting forests is important for the climate</p> <p>Pupils understand that burning coal, oil and gas has an impact on the climate and have a basic understanding of the scientific processes involved</p>
<p>Topic</p>	<p>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 region within North or South America</p> <ul style="list-style-type: none"> - Study Greenland and climate change using this planning scheme with resources from Wicked Weather Watch. <p>Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle</p> <ul style="list-style-type: none"> - Study the polar regions and how animals are adapting to climate change with the Ends of the Earth curriculum from WWF. - Compare and contrast climate and temperature changes around the world with this resource from Twinkl. - Water cycle, shortages, everything! From SEEd. 	<p>Human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water</p> <ul style="list-style-type: none"> - This resource looks at the devastating fires in the Amazon rainforest from Plazoom. - Teaching resources on how tea growers in Kenya are adapting to a changing climate while improving the sustainability of their farms, thanks to Fairtrade from Teachwire. - Learning packs about rainforests and indigenous tribes from YTPE. - A whole range of inspiring videos of adaptations around the world are available on the World Economic Forum's Twitter page. - What is a 'Climate Emergency?' Explanation from BBC Newsbeat and powerpoint about UK politics and agreements from Twinkl. - An explanation about the climate agreements between countries (Paris Agreement - signed in 2016) from YouTube. Information about President Trump's decision to leave the Agreement is available from Newsround. 	<p>Pupils can explain why many institutions have declared a 'Climate Emergency', and what this mean</p> <p>Pupils understand that leaders of governments make agreements with each other about climate action and can identify some of the content of these agreements</p> <p>Pupils know about some of the impacts that higher temperatures are having on people already.</p> <p>Pupils can identify a range of observed impacts of our changing climate on people locally and across the world the world</p> <p>Pupils have the opportunity to explore viewpoints on the climate crisis, including people of colour and / or people of the Global South expressing their view in their own words</p>



PSHE

Sustainable habits

Children to be sufficient [with school recycling and waste policy](#).

Re-cap safe and sustainable travel with [resources and plans from The BridgWaterway here](#).

Climate Change and the power to change

Continued emotional development. [Planning and resources available from ThoughtBox here](#).

Media

Watch Blue Planet and discuss the impact of human choices on the world's oceans.

Sustainable habits

Children should be using and supporting others [with school recycling and waste policy](#).

Human change and climate change

Develop emotional literacy and resilience by developing action plans. [Planning and resources available from ThoughtBox here](#).

Media

Watch Newsround daily - discuss the impacts to humans and animal habitats; changes to different countries' approaches in a post-Covid world.

Pupils can identify actions that can be taken at the level of their school and locality

Pupils can imagine different futures within their own likely lifetimes based on different levels of heating, including optimistic scenarios

Pupils know that action or lack of it now will have an effect on these different futures

Pupils can talk about their feelings about the earth and the natural world, our changing climate and its impacts. They know that others have a range of different feelings, including anxiety and fear

Pupils begin to understand how some people can feel less anxious when they take action with other people