

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

	<p style="text-align: center;"><b><u>Year 5</u></b></p> <ul style="list-style-type: none"> <li>- books from other cultures and traditions</li> <li>- making comparisons within and across books</li> <li>- public speaking, performance and debate.</li> <li>- retrieve, record and present information from non-fiction</li> </ul>	<p style="text-align: center;"><b><u>Year 6</u></b></p> <ul style="list-style-type: none"> <li>- distinguish between statements of fact and opinion</li> <li>- listening to books and other writing that they have not come across before, hearing and learning new vocabulary and grammatical structures</li> <li>- provide reasoned justifications for their views</li> </ul>	<p style="text-align: center;"><b><u>Progression of skills</u></b></p> <p style="text-align: center;">What pupils should know about climate change and sustainability by the end of Year 6</p>
<p><b>English</b></p> <p>Key vocabulary: Carbon footprint → Climate emergency → Tipping points → Intergovernmental Panel on Climate Change → Ecosystems → Climate justice → Carbon sinks → Biodiversity → Permaculture</p>	<p><b>For planning for debates and persuasive writing use these resources:</b>            Protests - from <a href="#">Plazoom</a>            Plastic - from <a href="#">Plazoom</a>            Environment - the <a href="#">Noisy Classroom</a>            Renewable Energy - from <a href="#">Sustainable Learning</a></p> <p><b>The Last Wild (Trilogy) - Piers Torday</b>            Fiction book set in the future where almost all the animals have died from a disease called The Red Eye. It is about a boy called Kester who is mute but has discovered that he can communicate with animals.            Lesson plans and resources put together by the author available at <a href="#">Sustainable Learning here.</a>            A writing and grammar planning framework (£5) is available <a href="#">from Literacy Curriculum here.</a>            Free activities and resources are available from <a href="#">Reading Agency here.</a>            Whole Class Guided Reading planning and resources (£2.85) is available <a href="#">from TES here.</a></p> <p><b>It's Your World: Get Informed, Get Inspired, &amp; Get Going, - Chelsea Clinton</b>            Learn about what children around the world are already doing; what can your class do too?            Teaching resource from the <a href="#">publishers here</a>            Resources from the <a href="#">website here.</a></p>	<p><b>Gaia Warriors - James Lovelock and Nicola Davies;</b>            Looks at how and why Earth's climate is changing and the ways we can deal with it with clear explanations and opinions and solutions from scientists.            - A wide selection of activities and planning from the <a href="#">publishers, available here.</a></p> <p><b>Analyzing Climate Change: Asking Questions, Evaluating Evidence, and Designing Solutions - Philip Steele;</b>            Explains the consequences of further climate change, from flooding of coastal areas to unhealthy pollution in urban areas, and how governments, international policies, businesses, and citizens can proactively work on limiting their use of greenhouse gases.</p> <p><b>Information/Non-Chronological Reports</b>            Resources on creating information texts from these reading resources are available from <a href="#">TES</a> and <a href="#">Twinkl.</a></p> <p><b>How We Know What We Know About Our Changing Climate: Scientists and Kids Explore Global Warming - Lyne Cherry</b>            Describes where scientists look to find evidence of climate change as well as what can be done to mitigate global warming.            Planning and resources from <a href="#">Young Voices for the Planet available here.</a>            More activities available <a href="#">here.</a></p>	<p>Pupils understand that 2030 is a scientific estimate of a year by which global emissions must have peaked in order to give humanity a reasonable chance of controlling eventual warming levels, and that it is not a deadline for an end-of-the-world scenario</p> <p>Pupils begin to understand what climate tipping points are and can connect these with the urgency to act</p> <p>Pupils begin to understand the lack of certainty in future predictions</p> <p>Pupils reflect on different views of the relationship of humans with the Earth (This might include a variety of different perspectives from around the world including some spiritual / faith perspectives)</p> <p>Pupils begin to identify the viewpoints which have influenced their own mindset, and which influence society more widely in the UK. They are given opportunities to think critically about these.</p>



<p>English planning &amp; resources continued</p>	<p><b>E-books and E-comics on Climate Change</b>  A wide selection of free e-books and e-comics are available for free from the <a href="#">World's Largest Lesson</a>.</p>	<p><b>Poetry</b>  A selection of climate-related poems to inspire your pupils to write their own, available from <a href="#">the Poetry Society</a></p> <p><b>Reading comprehension</b>  Information sheet and questions about climate change, protests and Greta Thunberg, <a href="#">available from Plazoom here</a>.</p>	<p>Pupils can give examples of institutions that have declared a 'climate emergency' at different scales and are aware of synonyms such as 'climate crisis'</p>
<p><b>Maths</b></p>	<p><b>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why; recognise and use square numbers and cube numbers, and the notation for squared ( 2 ) and cubed ( 3 )</b>  <a href="#">365 Penguins</a> - Jean-Luc Fromental;  Maths storybook with a range of word problems. <a href="#">Questions and activities available here</a>.</p> <p><b>Solve comparison, sum and difference problems using information presented in a line graph</b></p> <p><b>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit</b></p> <p><b>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero</b></p> <p>Data, activities and information that demonstrates to students the changes in temperature over the last 50 years <a href="#">available from Geography in the News, using data from the Met Office</a>. (Computing link).</p>	<p><b>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate</b></p> <p><b>Interpret and construct pie charts and line graphs and use these to solve problems</b></p> <p><b>Calculate and interpret the mean as an average.</b></p> <p>Activities that encourage students to form opinions on the issue of climate change based on scientific data, and aim to generate classroom discussion and debate. Full planning and activities available <a href="#">from STEM UK</a>.</p> <p>Measure microclimates with this activity from <a href="#">Learning Through Landscapes</a>.</p> <p>Use <a href="#">Giki</a> to calculate average carbon footprints in different countries, and how this affect the global average. How does this compare to when they did the activity in Year 4?</p>	<p>Pupils are familiar with the findings of cost-benefit analyses comparing quicker and slower global responses.</p> <p>Pupils know about current trends in total global climate emissions, i.e. whether they are rising, peaking or falling</p> <p>Pupils can explain simply what a carbon footprint of an individual, a product, or an activity is.</p> <p>Pupils can explain how some countries are more responsible than others for producing greenhouse gas emissions and compare this with where the climate crisis has the most severe impacts. They can use this information to begin to develop their own ideas about rights and responsibilities now and in the future.</p>

<p><b>Science</b></p>	<p><b>Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating</b></p> <ul style="list-style-type: none"> <li>- Effective lesson plan and engaging activity that demonstrates engaging experiment that can be carried out using simple equipment in the classroom to show how increasing levels of carbon dioxide in the atmosphere are contributing to rising global temperatures. Also included is a spreadsheet that students can populate with their own data from the experiment and visualise on a graph from <a href="#">YPTE</a>.</li> <li>- What are carbon sinks? How do they filter out carbon? Range of lesson plans and resources from <a href="#">Climate Ready Classrooms</a>. Use this knowledge to name other types of <a href="https://www.youtube.com/watch?v=OoW2PlvMpZs">https://www.youtube.com/watch?v=OoW2PlvMpZs</a> carbon sinks.</li> </ul> <p><b>Life Cycles - butterflies</b></p> <ul style="list-style-type: none"> <li>- Look at the life cycle of a butterfly. What is its function as a pollinator? Undertake a survey of butterflies around the school grounds. A whole range of <a href="#">pollinator-related activities here</a>.</li> <li>- Link to music with Meadowsong. <a href="#">More information here</a>.</li> </ul>	<p><b>Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals give reasons for classifying plants and animals based on specific characteristics.</b></p> <p>Look at coral oceans. What is coral? How is it being affected by global sea temperatures? Lesson plan and resources from <a href="#">Encounter Edu</a>.</p> <p><b>Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago</b></p> <ul style="list-style-type: none"> <li>- What are fossil fuels? Discussion and comparison to renewable energy from <a href="#">BBC Bitesize</a>.</li> <li>- The history and uses of fossil fuels (fact sheet) from <a href="#">NASA Kids</a>.</li> <li>- Range of activities and information from the <a href="#">Geology Society</a>.</li> </ul>	<p>Pupils can clearly articulate the link between burning fossil fuels and climate change using appropriate scientific vocabulary</p> <p>Pupils can clearly make the connection between climate change and things that they and others consume / activities they and others participate in</p> <p>Pupils understand that different lifestyles cause much lesser or greater carbon emissions</p> <p>Pupils can name key carbon sinks such as forests, peatlands, oceans, algal blooms, and healthy soil</p> <p>They are familiar with the concept of emissions reduction targets and can identify different targets and begin to connect these with current scientific estimates for degrees of warming</p> <p>Students know that our scientific understanding is developing and being revised</p>
<p><b>Music, PE &amp; Art</b></p>	<p><b>Art</b> Participate in this artistic activity to help the children develop emotional literacy and discuss contentious topics <a href="#">inspired by Bob and Roberta Smith</a>.</p> <p><b>PE</b> Play Climate Change Dodgeball - idea from <a href="#">Learning Through Landscapes</a>.</p> <p><b>Music</b> Meadowsong. <a href="#">More information here</a>.</p>	<p>Pupils can talk about their feelings about the climate crisis and about their own future</p> <p>Pupils can identify actions they can take personally and with a group of which they are part</p>	

<p><b>Topic</b></p>	<p><b>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</b></p> <ul style="list-style-type: none"> <li>- Look at how humans are adapting their habitats and homes for climate change all around the world. From <a href="#">Sustainability and Environmental Education</a>.</li> <li>- The Amazon fires. What happened? Why did it lead to protests around the world? Information pack and activities <a href="#">here</a>.</li> </ul> <p><b>Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time</b></p> <ul style="list-style-type: none"> <li>- What are rising sea levels? How is it affecting land use or the geographical features of countries? How will this lead to change in settlement or migration? Lesson plan from the <a href="#">British Council</a>.</li> </ul>	<p><b>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</b></p> <ul style="list-style-type: none"> <li>- What is agriculture? How is food produced, and what helps it to grow? How nations linked by trade? Learn about organic food and permaculture with this <a href="#">lesson plan</a>. There are activities that link to this lesson <a href="https://amarillotableland.wordpress.com/2013/06/23/permaculture-kids-lessons-week-1-3/">https://amarillotableland.wordpress.com/2013/06/23/permaculture-kids-lessons-week-1-3/</a>here.</li> <li>- Link to a gardening project with the <a href="#">Royal Horticultural Society</a> or <a href="#">Polli-Nation</a>.</li> <li>- What is Fairtrade? Resource pack from <a href="#">Teachwire</a>.</li> <li>- What will climate change look like in the future? Incredibly frank images from the <a href="#">Science Museum</a>. Suggest that this is followed up with a PSHE lesson: <b>WWF Shaping our Future</b> - Consolidate the pupils' understanding and emotional literacy with this comprehensive resource from the <a href="#">WWF</a>.</li> </ul>	<p>Pupils know what the Intergovernmental Panel on Climate Change is and can discuss some recent findings</p> <p>Pupils can give examples of institutions that have declared a 'climate emergency' at different scales and are aware of synonyms such as 'climate crisis'</p> <p>They are familiar with the concept of emissions reduction targets and can identify different targets and begin to connect these with current scientific estimates for degrees of warming</p> <p>Pupils can identify a range of impacts of our changing climate on people in the past and present, in their local area, in the UK, and also across the world</p> <p>Pupils can identify current impacts, and a range of predicted future impacts depending on levels of heating, including human migration</p> <p>Pupils are familiar with the 12 permaculture principles</p> <p>Pupils can outline different possible future scenarios - typically in 2100 - depending on levels of heating</p> <p>Pupils have an understanding of current scientific consensus on what these future scenarios may look like, including best-case scenarios</p>
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**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](#).

**Oxfam’s Climate Change Challenge**

By now your pupils should be familiar with the concept of climate change. Embed this understanding with cross-curricular links using this resource from [Oxfam](#)

**Climate Action Response Kit**

Inspire and motivate your pupils with this empowering activity from [Global Action Plan](#) and discuss why Friday for Future strikes may or may not be effective.

**Media**

- Newsround - watch daily for regular updates and opportunities to discuss climate change in the classroom.
- Watch Seven Worlds One Planet. What did they find shocking? What would the children say to these animals if they asked for help? What would the animals say about their futures?

**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**

Newsround - watch daily for regular updates and opportunities to discuss climate change in the classroom.

**Greenpeace visit**

Have a Greenpeace speaker visit your school for free to inspire a writing project or Art showcase. Link to contacts [here](#).

Pupils are familiar with actions that are being taken locally, nationally; and with key content of international agreements

Pupils begin to form their own opinions on these responses

Pupils can describe a range of examples of how a group have taken climate action together, both locally and across the world, and can talk about the outcomes

Pupils can discuss what makes for effective climate action

Pupils can suggest a range of alternatives which might reduce greenhouse gas emissions

Pupils are familiar with a range of methods people use to cope with anxiety about climate change including by taking collective action Pupils begin to understand that awareness of the problem does not always lead to action and begin to explore some of the reasons why