Science – Year 6

Summer 2	Looking after the environment					
Prior learning	Year 4 - conservation					
Lesson objective	Learn about climate change	Explore ways to reduce how much rubbish is sent to landfill	Explore ways to reduce energy consumption	Explore how climate change affects our planet	Explore what is being done to reduce climate change	Explore how data can demonstrate climate change
Key vocabulary	weather climate greenhouse gases global warming climate change	recycle landfill waste biodegrade council	net zero renewable non-renewable greenhouse gases emissions	drought heatwave glacier ice caps flooding	COP activist tackle reduce combat	data natural disaster trend historical data vulnerable
Creative context						
Substantive knowledge/ Disciplinary knowledge	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations	Identifying scientific evidence that has been used to support or refute ideas or arguments	Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs Using test results to make predictions to set up further comparative and fair tests Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of

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						and degree of trust in results, in oral and written forms such as displays and other presentations Identifying scientific evidence that has been used to support or refute ideas or arguments
Recorded learning	Make a rain gauge. Create a table to record results. Measure temperature each day, rainfall each week. In the last session, once all the measurements have been collected, take averages and compare them to national statistics to see the changes over the years. Challenge Task: Create a climate change poster to raise awareness of climate change to	Write a pledge for what they are going to do to limit the amount of things that are thrown away and to improve recycling in their school. Extend pupils by asking them to write to their local supermarkets to find out what they are doing to reduce waste and support recycling. Challenge Task: Not all plastic is easily recyclable. Ask the children to find out which types of	Conduct an audit throughout the school to see how much energy school is consuming and present this data in a table and a graph. Calculate a total estimate for one school day. Use the data and their graph to write a letter as a class to the headteacher with ideas about how they can reduce the amount of energy the school is using. Challenge Task: Calculate the	Explain how each of the main climate change impacts (flooding, drought, heatwaves, melting ice) affects people, animals, and plants. Challenge task: Rank the impacts in order of which they think is most serious, and justify their choice.	Order the 9 climate change action cards using the 'diamond 9' system, ranking them from most to least effective. Explain why they have ranked the actions in this way, using evidence to justify their choices. Challenge task: Choose one of the action cards they felt was less effective, and improve it, using evidence to explain why it is better than the original.	Look at the data that they have collected and compare it to a dataset from thirty or more years ago. Plot line graphs to demostrate the daily temperature and weekly rainfall data they have collected. Ask them to compare this to the historical data and draw conclusions about the changes they have observed. Challenge Task: Looking at the trends, predict what

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	display around the school. Encourage them to research climate change activists. What are they doing to raise awareness of climate change?	plastics are easy to recycle and which are much more difficult.	energy consumption for the whole school year (39 weeks).			the temperature and rainfall could be like thirty years in the future.
Future learning						