SBSP PROGRESSION OF COMPONENT KNOWLEDGE THROUGH SCIENCE UNITS

LOOKING AFTER THE ENVIRONMENT

Year 6 NC links:

- Using test results to make predictions to set up further comparative and fair tests
- Identifying scientific evidence that has been used to support or refute ideas or arguments
- 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 and bar and line graphs

Year 6 Component Knowledge

- Describe the difference between climate and weather
- Explain the effects of climate change
- Explain how planting trees can help to reduce climate change effects
- Understand what recycling is
- Understand what happens to waste that is sent to landfill
- Suggest ways in which the school can reduce the amount of waste that is sent to landfill
- Understand where the energy that the UK uses comes from
- Understand the difference between renewable and non-renewable energy
- Suggest ways to reduce the amount of energy used
- Understand what the industrial revolution was
- Observe what happens when combustion takes place
- Explain how the industrial revolution played a part in climate change
- Understand what COP is and what they want to do
- Understand what was agreed at the last COP meeting
- Suggest ways to make sure that COP targets are met
- Identify the effects of climate change on animals and habitats
- Analyse the data that has been collected
- Use data comparisons to predict future trends

Working Scientifically Component Knowledge

- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and 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
- Using test results to make predictions to set up further comparative and fair tests

Key Vocabulary

- prevent, global warming, climate, climate change, weather
- landfill, rubbish, council, biodegrade, recycle
- emissions, renewable, non-renewable, greenhouse gases, net zero
- combustion, fossil fuel, fuel, coal, industrial revolution
- COP, sustainability, subsidy, pledge, conference
- species, natural disaster, sensitive, habitat, vulnerable

KS3 NC links:

Ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experiences. Make predictions using scientific knowledge and understanding. Select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables, where appropriate. Use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety. Make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements. Apply mathematical concepts and calculate results. Present observations and data using appropriate methods, including tables and graphs. Interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions. Present reasoned explanations, including explaining data in relation to predictions and hypotheses. Evaluate data, showing awareness of potential sources of random and systematic error. Identify further questions arising from their results.