Working Scientifically Coverage
Year 4

Topic:	Asking relevant questions	Identifying differences, similarities or changes	Gathering, recording, classifying and presenting data	Using straightforward scientific evidence to answer questions and support their findings	Reporting on findings including oral and written explanations, presentation of results and conclusions	Report findings using scientific language, drawings, diagrams, keys, bar charts and tables	Setting up simple practical enquiries, comparative and fair tests	Make accurate measurements using standard units and a range of equipment	Using results to draw simple conclusions and make predictions	Make systematic and careful observations	Recognise statements that do or do not support an argument
Where does all that food go?	X	X	X	X	X		X		X	X	
Good vibrations	X	X	X	X	X	X	X		X	X	
In a state		X	X	X	X	X	X		X	X	
Switched on		X	X		X	X	X		X		
Who am I?		X								X	
Human impact?		X	X	X	X						X
Our changing world			X			X					

Working Scientifically Statement	Guidance
Asking relevant questions	Ask a clear scientific question that can be answered by gathering data. Use different types of enquiry to answer questions including: • observing changes over time • noticing patterns • grouping and classifying things • carrying out comparative and fair tests • using secondary sources of information such as books, photographs, videos and visiting experts. Make some decisions about which types of enquiry are likely to be the best ways to answer science questions that they have asked.
Identifying differences, similarities or changes	• Identify differences and similarities they have observed, in data they have collected or from secondary sources, and relate them to simple scientific ideas and processes. • Identify changes they have observed, in data they have collected or from secondary sources, and relate them to simply scientific ideas and processes. • Identify patterns in data they have collected or from secondary sources, and relate them to simple scientific ideas and processes.
Gathering, recording, classifying and presenting data	• Gather data from a range of relevant sources, both first hand and secondary. • Record data that they have gathered in a variety of ways to help in answering questions, including tables, bar charts and tally charts. • Sort data in a variety of ways to help in answering questions, including Carroll and Venn diagrams. Use and construct simple keys. • Present data in a variety of ways to help in answering questions, including drawings, labelled diagrams, bar charts, bar line graphs and simple scatter graphs and tables.
Using straightforward scientific evidence to answer questions and support their findings	• Refer to evidence from different enquiry types, including observations they have made and data they have collected, when answering questions, explaining findings or drawing conclusions. • Refer to evidence from secondary sources when answering questions or explaining findings.
Reporting on findings including oral and written explanations, presentation of results and conclusions	• Recognise that there are many different ways that findings could be reported. • Make some decisions about how best to report findings from a range of enquiries to a variety of audiences. • Draw simple conclusions from their results. • Use appropriate scientific, first to talk about and later to write about what they have found out.
Record findings using scientific language, drawings, diagrams, keys, bar charts and tables	Use simple scientific language when recording findings from different types of enquiries: • Adding labels and annotations clearly and appropriately, for example, on annotated drawings or labelled diagrams. • In simple keys, bar charts and tables, using either a given structure or sometimes creating their own.
Setting up simple practical enquiries, comparative and fair tests	• Follow instructions on their own to carry out a range of practical enquiries, including comparative and tests. • Make some decisions about what observations and/or measurements they will need to make and, with support, consider their frequency and whether they should be repeated. • Make some decisions about the basic equipment they might use when setting up an enquiry. • Recognise when a simple fair test is necessary and, with support, decide what variables to change and control, and how to collect the results.
Make accurate measurements using	• Make some decisions about what observations and/or measurements they will need to make and, with support, consider their frequency and whether they should be repeated.

standard units and a range of equipment	• Make some decisions about the basic equipment they might use when setting up an enquiry. • Recognise when a simple fair test is necessary and, with support, decide what variables to change and control, and how to collect the results.
Using results to draw simple conclusions and make predictions	• Draw simple conclusions using findings from a range of enquiries. • Make predictions for new values within or beyond data they have collected themselves. • Suggest ways in which an enquiry might be improved. • Ask new questions arising from data.
Make systematic and careful observations	• Make regular and careful observations using magnifiers, digital microscopes as appropriate, and note and record changes. • Use a range of equipment including data loggers to collect data using standard measures. • With support, take accurate measurements using measuring equipment, including thermometers and data loggers, recognising when they need to repeat readings.
Recognise statements that do or do not support an argument	• Recognising statements that do and do not support an argument.