Science – Year 3

Autumn 1	Scientific enquiry					
Prior learning	Working scientifically statements covered in KS1					
Lesson objective	How can a solar oven be made more effective: posing questions and writing predictions	How can a solar oven be made more effective: recording and presenting results	Cleaning coins: writing a method and carrying out a practical test	Cleaning coins: writing a conclusion	Making a cake: fair testing, controls and variables	Making a cake: scientific enquiry
Key vocabulary	Solar, renewable energy, scientific, investigation, prediction, plausible	Record, results, data, table, graph	Acid, alkali, PH, method, practical	Conclusion, evidence, explanation, compare, enquiry	Baking, measurements, fair test, control experiment, variable	Conclusive, scientific knowledge, equipment, diagram, collated
Creative context						
Substantive knowledge	Disciplinary focus	Disciplinary focus	Disciplinary focus	Disciplinary focus	Disciplinary focus	Disciplinary focus
Disciplinary knowledge	Asking relevant questions and using different types of scientific enquiries to answer them	Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.	Identifying differences, similarities or changes related to simple scientific ideas and processes. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	Setting up simple practical enquiries, comparative and fair tests.	Using straightforward scientific evidence to answer questions or to support their findings Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

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Recorded learning	Scientific question, prediction, equipment list and method written.	Present results of experiment in table and then a bar graph, write conclusion paragraph based on results.	Write equipment list and set of instructions for method including how to carry out fair test.	Write a conclusion for experiment in 4 steps. 1) State what happened; 2) Give evidence; 3) Give a scientific explanation to support the evidence; 4) Compare the results with the prediction.	Write a scientific question. Written prediction, method, ingredient and equipment list and draw and label diagram.	Written conclusion and consider variables they could test in their next investigation.
Future learning	Scientific knowledge to be used in every unit for the rest of KS2.					