Year 3 Science - Autumn 1 Unit
Scientific Enquiry

Key Scientific Skills	Year 3 Scientific Enquiry
Ask relevant questions and using different types of scientific enquiries to answer them	
Set up simple practical enquiries, comparative and fair tests	
Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers	
Gather, record, classify and present data in a variety of ways to help in answering questions	
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	
Identify differences, similarities or changes related to simple scientific ideas and processes	
Use straightforward scientific evidence to answer questions or to support their findings	

Lesson Sequence


1. How can a solar oven be made more effective: posing questions and writing predictions

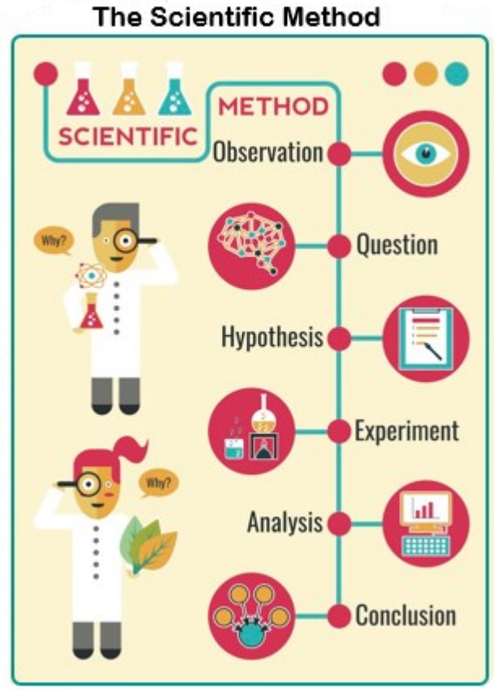

2. How can a solar oven be made more effective: recording and presenting results


3. Cleaning coins: writing a method and carrying out a practical test


4. Cleaning coins: writing a method

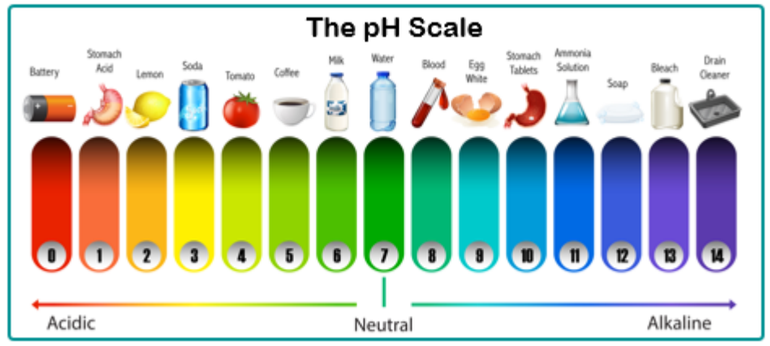

5. Making a cake: fair testing, controls and variables


6. Making a coin: scientific enquiry



Rocket Words

scientific investigation	finding answers to questions using research methods
prediction	explaining what you think might happen
plausible	having a reason
record	writing the measurement of something
data	a set of facts or numbers used to learn about something
method	instructions for carrying out an experiment
control experiment	an experiment that is used to compare other experiments where there are variables
equipment	tools or items that are needed
enquiry	a question to find something out
practical	the performing of a scientific experiment
conclusion	the end result or outcome
fair test	where one variable is changed and all other elements are kept the same



The Scientific Method

Comparative / fair testing
Changing one variable to see the effect on another, whilst keeping all others the same.

Research
Using secondary sources of information to answer scientific questions.

Observation over time
Observing changes that occur over a period of time, ranging from minutes to months.

Pattern-seeking
Identifying patterns and looking for relationships in enquiries where variables are difficult to control.

Identifying, grouping and classifying
Identifying observations to name, sort and organise items.

Problem-solving
Applying prior scientific knowledge to find answers to problems.

fair test – where one variable is changed, and all other elements are kept the same

variable - something that is changed

control experiment - an experiment that is used to compare other experiments where there are variables