

Year 4 Working scientifically



Prior and future learning

Prior Knowledge...	What's next?
<ul style="list-style-type: none"> With support, develop relevant, testable questions. Plan enquiry, such as comparative or fair test, e.g. comparing the effect of different factors on plant growth. Set up a comparative test. Use various equipment as instructed. Use standard measurements when taking measurements. With prompting, draw and label diagrams. With prompting, use tables to record evidence. With prompting, gather and display evidence in various ways. With prompting, write a conclusion based on evidence. Indicate findings from an enquiry that could be reported. With prompting, recognise patterns that relate to scientific ideas, e.g. investigating the behaviour of magnets. With support, use evidence to produce a simple conclusion. <p>Suggest how an investigation could be extended, e.g. suggesting creative uses for different magnets.</p>	<ul style="list-style-type: none"> With support, can answer questions using evidence gathered from different types of scientific enquiry. With prompting, identifies and manages variables. Following discussion of alternatives, selects appropriate equipment. Take measurements that are precise as well as accurate. Know how to process repeat readings, e.g. when timing falling objects. Start to use labelled diagrams to show more complex outcomes. With prompting, use various ways to record complex evidence. Use a line graph to record basic data. With prompting, write a conclusion using evidence and identifying causal links. With support, display and present key findings from enquiries orally and in writing. With support, indicate why some results may not be entirely trustworthy. Show how evidence supports a conclusion. Suggest further relevant comparative or fair tests,.

Track your learning

Skill	How I will show what I've learned			
Plan	I can develop relevant testable questions.			
	I can plan investigations using different types of scientific enquiry.			
	I can set up a comparative and fair tests.			
Do	I can use a variety of equipment as instructed.			
	I can recognise the importance of using standard measurements.			
Record	I can use words and diagrams to record findings.			
	I can use various ways to record and display evidence.			
Report	I can write a conclusion based on evidence.			
	I can present findings either written or orally.			
Review	I can recognise patterns in the data.			
	I can use evidence to produce simple conclusions.			
	I can use evidence to suggest further relevant investigations.			

Key knowledge I need to understand (different types of enquiry)

<p>CAPTAIN PEEKO</p> <p>Spotting patterns everywhere!</p> <p>Pattern seeking</p>	<p>BILLY BOOKHEAD</p> <p>He's got all the facts!</p> <p>Research using secondary sources</p>	<p>SUPERGIRL</p> <p>Making sure all's fair and right!</p> <p>Comparative and fair testing</p>	<p>SPY MAGNUS</p> <p>Watching near and far!</p> <p>Observing over time</p>	<p>COMMANDER CLASSIFY</p> <p>Identifying, classifying and grouping</p>
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Vocabulary	
Classify	To arrange things in categories according to shared characteristics or properties.
Research	To investigate to discover facts about a topic.
Conclusion	To summarize the main points of an experiment.
Identify	To establish what something is.
Compare	To draw an analogy between one thing and (another) for the purposes of explanation or clarification.
Contrast	To show how something is different in a science experiment.
Biology	The study of living organisms.
Chemistry	The study of chemicals and substances and what they're made up of.
Physics	The study of properties of matter and energy.
Prediction	To have an educated guess as to what may happen in an experiment.
Interpret	To understand something in a specified way.
Data	A collection of information.
Evidence	A sign that shows something is true.
Fair test	A test which controls all but one variable.
Systematic	To use a system or regular orderly method.
Construct	To create something e.g. a graph
Accurate	Free from error as a result of taking care.
Variables	Something that is changed in an experiment.
Line graphs	A graph which is used to show changes over time and consists of a line.