Year 4 Working scientifically

Prior and future learning



Prior Knowledge... What's next? With support, develop relevant, testable questions. With support, can answer questions using evidence gathered from Plan enquiry, such as comparative or fair test, e.g. different types of scientific enquiry. comparing the effect of different factors on plant growth. With prompting, identifies and manages variables. Set up a comparative test. Following discussion of alternatives, selects appropriate equipment. Use various equipment as instructed. Take measurements that are precise as well as accurate. Use standard measurements when taking measurements. Know how to process repeat readings, e.g. when timing falling With prompting, draw and label diagrams. objects. With prompting, use tables to record evidence. Start to use labelled diagrams to show more complex outcomes. With prompting, gather and display evidence in various With prompting, use various ways to record complex evidence. Use a line graph to record basic data. ways. With prompting, write a conclusion based on evidence. With prompting, write a conclusion using evidence and identifying Indicate findings from an enquiry that could be reported. causal links. With support, display and present key findings from enquiries orally With prompting, recognise patterns that relate to scientific ideas, e.g. investigating the behaviour of and in writing. With support, indicate why some results may not be entirely With support, use evidence to produce a simple trustworthy. conclusion. Show how evidence supports a conclusion.

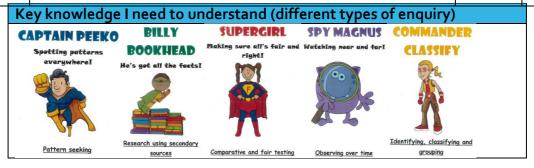
Track your learning

Suggest how an investigation could be extended, e.g.

suggesting creative uses for different magnets.

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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.			
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Suggest further relevant comparative or fair tests,.



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.			