



Sea Mills Primary School – Scientists Skills Progression – Working Scientifically



Understanding of the world

Understanding the World: ELG – The Natural World

Children at the expected level of development will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants;
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class;
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Children in the EYFS will be assessed as 'on track' or 'not on track' for each ELG throughout the year.

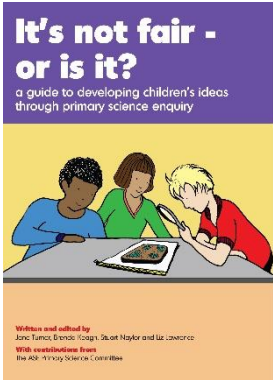
Please remember to refer to the **five** areas of Working Scientifically as discussed in PDM. You need to teach WS alongside your scientific enquiry and not as a standalone subject.

- Pattern seeking
- Observation over time
- Comparative and fair testing
- Identifying, classifying and grouping
- Research



Fantastic lessons and investigations that you can use of adapt, can be found in *'It's not fair...or is it?'*

Remember that we have lots of books and fantastic resources to support you in further planning.





* Year group focus

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	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working Scientifically	Ask simple questions and recognise that they can be answered in different ways Use simple equipment to observe closely Use his/her observations and ideas to suggest answers to questions Identify and classify* Perform simple tests* Gather and record data to help in answering questions*	Communicate his/her ideas what he/she does and what he/she finds out in a variety of ways Use simple equipment to observe closely including changes over time* Use his/her observations and ideas to suggest answers to questions noticing similarities, differences and patterns Identify, group and classify Ask simple questions and recognise that they can be answered in different ways including use of scientific language from the NC* Compare simple comparative tests Gather and record data to help in answering questions including from secondary sources of information*	Ask different types of questions and use different types of scientific enquiries to answer them* Make systematic and careful observations, and where appropriate, take accurate measurement using standard units, using a range of equipment, including thermometers and data loggers * Set up simple practical enquiries, comparative and fair tests* 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, including oral and written explanations, displays or presentations of results and conclusions* Use results to draw simple conclusions, make predictions and new values, suggest improvements and raise further questions* Identify differences, similarities or changes related	Ask relevant questions and use 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, take 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, including oral and written explanations, displays or presentations of results and conclusions* Use results to draw simple conclusions, make predictions and new values, suggest improvements and raise further questions* Identify differences, similarities or changes related	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary* Take measurements using scientific equipment, with increasing accuracy and precision, taking repeat findings when appropriate Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs* Use test result to make predictions to set up further comparative and fair tests* Report and present findings from enquiries including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations* Identify scientific evidence that has been used to support or refute ideas or arguments*	Plan different types of scientific enquiries to answer their own or others questions, including recognising and controlling variables where necessary* Take measurements, using scientific equipment, with increasing accuracy and precision, taking repeat findings when appropriate* Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs* Use test result to make predictions to set up further comparative and fair tests* Report and present findings from enquiries including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations* Identify scientific evidence that has been used to support or refute ideas or arguments*



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			to simple scientific ideas and processes*	to simple scientific ideas and processes*		
			Use straightforward scientific evidence to answer questions or to support his/her findings	Use straightforward scientific evidence to answer questions or to support his/her findings		