

## Progression Through 'Working Scientifically' Objectives



### Early Years Foundation Stage

In Reception class, children will work towards the Early Learning Goal for 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.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Independent demonstration of scientific skills</b>	Each focus investigation will support pupils to record one section independently.  To become familiar with the 6 areas of working scientifically.	Each focus investigation will support pupils to record two sections independently.  To become familiar with the 6 areas of working scientifically.	Each focus investigation will support pupils to record three-four sections independently.  To begin to be able to explain the 6 areas of working scientifically.	Pupils will record investigations independently, following a given structure in 2-3 sections.  To be able to explain the 6 areas of working scientifically.	Pupils will record investigations independently, following a given structure in 2-3 sections.  To begin to be able to work scientifically independently through all 6 areas.	Pupils will record investigations independently, using scaffolding only as directed by individual needs.  To be able to work scientifically independently through all 6 areas.
<b>Observation</b>	Observation will usually be given.		Observations will sometimes be given and recording will be supported.	Observations will sometimes be given. Children will record independently, with scaffold as directed by individual needs.	Observations will be independently drawn from a directed stimulus and whole class discussions will support this.	
<b>Question</b>	The structure of the question will be given. As a whole class, pupils will generate ideas and agree one class question.		Questions will sometimes be given and recording will be supported.	Questions will sometimes be given. Children will record independently, with scaffold as directed by individual needs.	Pupils may ask their own questions, develop questions in groups or agree on a whole class	
<b>Hypothesis</b>	Class will generate observations and one will be chosen to test.		Hypothesis will usually be drawn independently, but with a structure given.	Hypotheses to be independently drawn and recorded.	Pupils will independently propose hypotheses	
<b>Test</b>	In groups, children will undertaken one aspect of the test (e.g. 1 material when 5 are being tested).		Testing will usually be undertaken independently, but with the structure of method given and close supervision.	Testing will usually be undertaken independently after the method is agreed with an adult.	Pupils will independently test these hypotheses taking into account the variable types to ensure a fair test	
<b>Results</b>	Whole class discussion and written up.		Templates or structures for results and whole class sharing of results will usually be undertaken.		Results will be discussed as a class and recorded increasingly independently.	
<b>Conclusions</b>	Completing conclusion in own words after class discussion.		Conclusions will be independently drawn by the end of Year 3.	Conclusions will be independently drawn.		