

Scientific Enquiry

'Science enquiry is what children do in order to answer scientific questions about the world around them' from 'It's not fair - or is it?' (Turner et al, 2011)

Encountering	Foundation	Core	Development	Enrichment	Enhancement
<p>Repeat modelled activity</p> <p><u>Plan</u> I can choose different resources to explore</p> <p><u>Do</u> I can repeat actions that have an effect</p> <p>I can use all my senses to explore & respond to materials & natural phenomena</p> <p><u>With help</u> I can make simple observations using learnt vocabulary or simple drawings/signs</p> <p>I can enjoy and take part in an adult presented science attention activity</p> <p><u>Review</u> I am beginning to comment on things I have experienced using learnt words or signs</p>	<p><u>Plan</u> I am curious about things that change</p> <ul style="list-style-type: none"> • similarities & differences • my surroundings • how things behave • patterns <p><u>With help</u> I ask questions about</p> <ul style="list-style-type: none"> • things changing • similarities & differences • things I can test • my ideas for finding out about patterns and that I can answer using secondary sources <p><u>Do</u> I use all my senses to observe changes, etc</p> <p>I can make simple records of how things change, etc (with help where necessary)</p> <p>With support, I can carry out simple tests</p> <p>With support, I use simple equipment to observe & record changes, sort things, etc</p> <p>I know that information in books and electronic media can be used to answer scientific questions</p> <p><u>Review</u> With adult support I can show, point, use simple phrases to</p>	<p><u>Plan</u> I can explore, make simple observations and comments to find out more about</p> <ul style="list-style-type: none"> • similarities and differences • surroundings • how things behave • patterns <p><u>With help</u> I ask questions using/understanding more scientific vocabulary about these areas</p> <ul style="list-style-type: none"> • things changing • similarities & differences • things I can test • my ideas for finding out about patterns and that I can answer using secondary sources • I can start to make simple predictions e.g about how to do it and what might happen • I can start to make simple comparisons <p><u>Do</u> I use simple equipment to observe & record changes, sort things, etc</p> <p>Using my preferred learning style, I can simply record how things change, eg draw a simple diagram</p> <p>I can carry out simple tests. With an adult led activity I can start to make comparisons between simple features of objects, materials or living things</p> <p>With adult support, I can make requests to find out information in</p>	<p><u>Plan</u> I can ask questions about</p> <ul style="list-style-type: none"> • how & why things change/are linked • why things are similar or different • how things are and the way they work <p><u>With help</u></p> <ul style="list-style-type: none"> • I identify changes/patterns to observe and measure & suggest how to do it • I notice links between cause & effect • I make suggestions about how to find things out • I plan simple comparative tests <p><u>Do</u> I use non-standard units & simple equipment to record changes, data & events that may be related</p> <p>I record in words, pictures or simple prepared formats & tables</p> <p>I use simple books and electronic media to find things out</p> <p><u>Review</u> I begin to use scientific language to talk about simple changes, what I found out, how things are similar or different, patterns and to describe simple causal relationships</p> <p>I can express my findings why something happens</p>	<p><u>Plan</u> I talk about how things are and the way they work and recognise when questions can be answered by research using secondary sources, or observed over time, investigated by pattern seeking, or by sorting and classifying</p> <p>I decide what observations to make, how often, and what equipment to use and what data to collect</p> <p>I talk about links between cause and effect and pose a fair test question</p> <p><u>Do</u> I use a range of equipment to collect data using standard measures</p> <p>I make records using tables and bar charts</p> <p>I begin to use and interpret data collected through data loggers</p> <p>I use information sources to find the information I need</p> <p>I carry out simple tests to sort and classify according to properties or behaviour</p> <p>I use Carroll & Venn diagrams, simple keys and branching databases for things that have clear differences</p> <p><u>Review</u> I draw simple conclusions</p> <p>I suggest ways to improve my</p>	<p><u>Plan</u> I can plan a comparative fair test</p> <p>I can independently repeat an experiment to check my data.</p> <p>I link cause and effect with reference to relevant evidence.</p> <p><u>Do</u> I use equipment accurately to collect data.</p> <p>I record data appropriately using graphs.</p> <p>I use relevant secondary sources and information.</p> <p>I use a series of tests.</p> <p>I make my own branching database or keys.</p> <p><u>Review</u> I draw valid conclusions based on data.</p> <p>I understand if my research has answered the question.</p> <p>I can evaluate information and results to make informed generalisations.</p>

	express what I have done, found out, noticed, sorted or whether something makes a difference	books and electronic media to answer scientific questions <u>Review</u> I talk about what I have done, found out, noticed, sorted or whether something makes a difference I can make a simple statement about something		scientific work I talk about what the information and data means using scientific language	
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