

## Rise Park Science skills ladders – Look at the non-statutory guidance for ideas when working scientifically

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> <li>• Links to big question</li> <li>• General discussions in all topics</li> <li>• Investigations</li> </ul> <p>observing closely, using simple equipment</p> <ul style="list-style-type: none"> <li>• Magnifying classes, egg timers</li> </ul> <p>performing simple tests throughout topics:</p> <ul style="list-style-type: none"> <li>• comparing (materials)</li> <li>• grouping (materials and animals)</li> <li>• Drawing observation</li> <li>• Collect data (ticking)</li> </ul>	<p>asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> <li>• Links to Big Questions</li> <li>• General discussions in all topics</li> <li>• Investigations</li> </ul> <p>observing closely, using simple equipment</p> <ul style="list-style-type: none"> <li>• Magnifying classes, egg timers</li> <li>• plants</li> </ul> <p>performing simple tests throughout topics:</p>	<p>asking relevant questions and using different types of scientific enquiries to answer them</p> <ul style="list-style-type: none"> <li>• Ask questions about and observe every day phenomena e.g. forces</li> <li>• Understand a fair test</li> </ul> <p>setting up simple practical enquiries, comparative and fair tests</p> <p>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p>	<p>asking relevant questions and using different types of scientific enquiries to answer them</p> <ul style="list-style-type: none"> <li>• Look at more than 1 variable</li> <li>• Decide what type of test we're using</li> </ul> <p>setting up simple practical enquiries, comparative and fair tests</p> <p>making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p>	<p>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <ul style="list-style-type: none"> <li>• Begin to recognise scientific ideas change and develop over time.</li> <li>• Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns,</li> </ul>	<p>planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <ul style="list-style-type: none"> <li>• Begin to recognise scientific ideas change and develop over time.</li> <li>• Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns,</li> </ul>

<p><b>identifying and classifying</b></p> <ul style="list-style-type: none"> <li>• Materials</li> <li>• animals</li> </ul> <p><b>using their observations and ideas to suggest answers to questions</b></p> <ul style="list-style-type: none"> <li>• use non-standard units of measures – obs over time, growing</li> </ul> <p><b>gathering and recording data to help in answering questions.</b></p> <ul style="list-style-type: none"> <li>• Conclusions</li> <li>• Record findings in different ways – drawing</li> <li>• Look for patterns (trees)</li> </ul>	<p><b>identifying and classifying</b></p> <ul style="list-style-type: none"> <li>• materials</li> <li>• plants</li> </ul> <p><b>using their observations and ideas to suggest answers to questions</b></p> <ul style="list-style-type: none"> <li>• careful observational drawings</li> </ul> <p><b>gathering and recording data to help in answering questions.</b></p> <ul style="list-style-type: none"> <li>• Record simple data in different ways</li> <li>• Begin to say what this tells us.</li> </ul>	<ul style="list-style-type: none"> <li>• Tape measures</li> <li>• Timers</li> <li>• Thermometers</li> </ul> <p><b>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</b></p> <ul style="list-style-type: none"> <li>• Tables provided by the teacher</li> <li>• Annotated diagrams</li> <li>• Models</li> <li>• Begin to record simple data.</li> </ul> <p><b>using results to draw simple conclusions, make predictions for new values.</b></p>	<ul style="list-style-type: none"> <li>• Decimetre</li> <li>• Dataloggers</li> <li>• Thermometers</li> </ul> <p><b>gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</b></p> <ul style="list-style-type: none"> <li>• Record findings using simple scientific vocabulary</li> <li>• drawings, labelled diagrams,</li> <li>• keys, bar charts and tables</li> </ul> <p><b>using results to draw simple conclusions, make predictions for new values suggest improvements and raise further questions</b></p>	<p>grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)</p> <p><b>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs</b></p> <ul style="list-style-type: none"> <li>• Present finding from enquiries</li> </ul> <p><b>reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as</b></p>	<p>grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)</p> <p><b>recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs</b></p> <ul style="list-style-type: none"> <li>• Can choose how best to present data.</li> </ul> <p><b>reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as</b></p>
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