

# Key Stage 3

## Subject Assessment Criteria: Science

Level	Assessment Descriptor
<b>9</b>	<ul style="list-style-type: none"> <li>• Explain accurately abstract concepts from all three different areas of science and discuss links between the different science subjects.</li> <li>• Independently use a variety of sources to design an investigation which will enable collection of valid and reliable data; finer detail of range and intervals are all independently decided.</li> <li>• Explain outcome of experiments in full detail.</li> <li>• Explain the impact of errors on the results and give specific improvements to improve experimental procedures.</li> <li>• Use a range of primary and secondary data to support conclusions.</li> <li>• Flawless manipulation of number in all aspects of science.</li> <li>• Multiple stage calculations to resolve complex problems.</li> <li>• Rearrange an equation with four or more variables.</li> </ul>
<b>8</b>	<ul style="list-style-type: none"> <li>• Explain accurately abstract concepts from different areas of science.</li> <li>• Independently use a variety of sources to design an investigation which will enable collection of valid and reliable data.</li> <li>• Explain outcome of experiments.</li> <li>• Explain the impact of errors on the results and how we could address these.</li> <li>• Use a range of data to support conclusions.</li> <li>• Almost flawless manipulation of number in all aspects of science.</li> <li>• Multiple stage calculations to resolve problems.</li> <li>• Rearrange an equation with four variables.</li> </ul>
<b>7</b>	<ul style="list-style-type: none"> <li>• Explain challenging ideas in science using appropriate key terminology and link to observations.</li> <li>• Uses scientific knowledge to design an investigation which enables the collection of valid and reliable data.</li> <li>• Describe in detail trends and patterns within results displayed in both tables and graphs.</li> <li>• Comment on anomalous results and possible sources of errors within the experiment.</li> <li>• Explain impact of errors on experimental results.</li> <li>• Calculate percentage changes.</li> <li>• Use a knowledge of number prefixes e.g. Kilo/mega to readily convert between units.</li> </ul>
<b>6</b>	<ul style="list-style-type: none"> <li>• Use scientific terminology and ideas to explain and to account for observations in the scientific world.</li> <li>• Develop a hypothesis from an observation and design an investigation to test the hypothesis.</li> <li>• Describe trends and patterns within results using examples from the data.</li> <li>• Describe the possible cause of anomalies.</li> <li>• Plot a linear graph incorporating non-integer values and non-evenly spaced values of the independent variable.</li> <li>• Rearrange equations with three variables.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>• Use more than one scientific idea to describe a scientific observation with supporting evidence.</li> <li>• Describe in detail a range of scientific observations.</li> <li>• Write a suitable method which specifically addresses the given hypothesis; state which variables need to be controlled; identify hazards and take precautions to reduce risk</li> <li>• Describe what experimental results show, including patterns and a link to the hypothesis</li> <li>• Identify anomalous results.</li> <li>• Plot a linear graph using a whole number scale.</li> <li>• Draw an appropriate line of best fit.</li> <li>• Calculate simple percentages</li> <li>• Correctly substitute information within written problems into three term equations.</li> </ul>

<p><b>4</b></p>	<ul style="list-style-type: none"> <li>• Verbally or in writing, use more than one scientific idea to describe a scientific observation.</li> <li>• Identify appropriate variables within the investigation and be able to design a simple method.</li> <li>• Simply describe what the results show and identify simple patterns.</li> <li>• Construct axis and plot data points correctly; accurately calculate a mean.</li> </ul>
<p><b>3</b></p>	<ul style="list-style-type: none"> <li>• Use relevant key words when recalling simple facts about Science.</li> <li>• Suggests suitable apparatus and order instructions to produce a sensible method.</li> <li>• Describe what happens in an experiment.</li> <li>• Plot points on a scatter graph when provided with axis</li> </ul>
<p><b>2</b></p>	<ul style="list-style-type: none"> <li>• Use relevant key words when stating simple facts about Science.</li> <li>• Make suitable selections from a list of apparatus to answer a simple scientific question.</li> <li>• State simply what happens in an experiment.</li> <li>• Plot a bar chart when provided with axis.</li> </ul>
<p><b>1</b></p>	<ul style="list-style-type: none"> <li>• Use relevant key words with support when stating simple facts about Science.</li> <li>• Recognise apparatus from scientific names with minimal support.</li> <li>• State simply what happens in an experiment when provided with scaffolding.</li> <li>• Plot a bar chart with support when provided with axis.</li> </ul>