

KS3 Specification 2020



SCIENCE

Stage Descriptors

RLT Stage Criteria

Stage 11	<ol style="list-style-type: none"> Evaluate unfamiliar situations by applying existing knowledge Describe further questions that can be investigated from your conclusions and evaluation Explain why a hypothesis may become stronger after it is tested; describe how controlling variables is important in providing evidence for a conclusion; identify independent and dependent variables and describe how to control variables and identify those that are beyond their control; choose a suitable range of repeated data and identify outliers and discount from mean; suggest and justify improvements to equipment to lead to more accurate results Weigh up the benefits and risks of an application of science to make a decision. Consider the social, economic and environmental consequences of new discoveries and inventions
Stage 10	<ol style="list-style-type: none"> Apply existing knowledge to explain unfamiliar situations or evaluate scientific models Justify how data is presented and suggest how to extend the data collected to further test and evaluate the conclusion Describe what to do if the conclusion does not agree with your hypothesis; identify independent and dependent variables and describe how to control variables and identify those that are beyond their control; choose a suitable range of repeated data and identify outliers and discount from mean; suggest improvements to equipment to lead to more accurate results Describe specific hazards and suggest the likelihood of it occurring. Explain the importance of peer review in scientific developments
Stage 9	<ol style="list-style-type: none"> Apply existing knowledge to explain familiar situations Justify how data is presented to enable scientific conclusions to be drawn and evaluated Correctly state if findings support your hypothesis; identify independent and dependent variables and describe how to control variables; choose a suitable range of repeated data and identify outliers and discount from mean; describe and justify the choice of equipment Explain the hazards specific to a particular experiment and ways to reduce the risk. Describe a scientific theory and the evidence that supports it and explain how scientific theories can change over time
Stage 8	<ol style="list-style-type: none"> Explain scientific knowledge or diagrams using appropriate scientific terminology Present data appropriately to enable scientific conclusions to be drawn and limitations identified Create a hypothesis; identify independent and dependent variables and list control variables; choose a suitable range of repeated data and identify outliers; describe equipment and explain its use Describe hazards specific to a particular experiment and ways to reduce the risk. Describe a scientific theory
Stage 7	<ol style="list-style-type: none"> Describe scientific knowledge or diagrams using appropriate scientific terminology Present data appropriately with limited guidance to enable simple scientific conclusions to be drawn Create a hypothesis with guidance; identify independent and dependent variables and list some control variables; choose a suitable range of repeated data; describe how to use equipment to collect data Describe hazards specific to a particular experiment. Describe a scientific idea

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Stage 6	<ol style="list-style-type: none"> Describe scientific knowledge simply using a diagram if needed Present data appropriately with guidance to enable simple conclusions to be drawn Make a prediction and gather sufficient data to test prediction, identifying independent and dependent variables; select some equipment specific to an experiment Identify hazards specific to a particular experiment. State examples of theories in science
Stage 5	<ol style="list-style-type: none"> Recall scientific knowledge Present data in simple table and bar charts and identify patterns in data Prediction with guidance; identify independent and dependent variables with guidance; gather some data; choose from a list of equipment to complete a given method Describe general hazards in a laboratory. Know the difference between fact and theory
Stage 4	<ol style="list-style-type: none"> Identify some scientific facts with guidance Present data in a given table and bar chart and identify a pattern in data with some guidance Make a prediction with guidance and state what will be measured; gather some data with support; follow a given method using equipment safely Identify general hazards in a laboratory. Know the difference between fact and theory with guidance