Science Grade Descriptions

Grade	Knowledge	Understanding	Application
P	I can: • recognise key words in a topic • identify the key pieces of apparatus • state how to use a piece of equipment	I understand: • the main feature of a topic • key health and safety procedures in the lab	I can: • apply knowledge to a scientific enquiry • follow instructions to complete a practical
S	I can: • confidently give the key words of most scientific topics • select the topic questions are referring to • communicate my knowledge of a subject correctly.	I understand: • what the results of an investigation show • the method used to collect results • how my science knowledge applies to a given area	I can: • apply given mathematical skills to data sets • use knowledge from everyday life to attempt explanations of results
1	I can: • outline some key words of most topics • state some of the main scientific topics.	I understand: • key features of the main scientific ideas. • the risks involved in experiments and how to prevent them from happening.	I can: • with guidance, explain how results link to a given science topic. • use limited mathematical skills to help analyse results.
2	I can: • define key words of different topics. • identify independently the scientific topic being covered.	I understand: • the key features of a topic. • which features of a topic are being used in different situations.	I can: • apply the main features of a topic to a similar situation. • use research to help explain results of an investigation.
3	I can: • accurately use key terms in writing • describe key features of each science topic • explain straight forward scientific phenomena	I understand: • how to use graphs to extract correct measurements • how to accurately outline patterns shown in scientific theories and topics.	I can: • apply given scientific evidence to theories • express my own opinion on a scientific theory
4	I can: • explain the key features of a topic in detail • select the appropriate graph and mathematical skills to analyse results	I understand: • why different analysis methods are used. • how to draw conclusions from given data sets and use it to help explain key features of a topic.	I can: • use graphical data to explain a new context, within a given science topic • use mathematical skills to create useful data analysis.
5	I can: • explain the most important aspects of a topic • accurately and in detail outline the main scientific concepts	I understand: • the impact main topics have on the environment and society. • I need to recall the key scientific equations needed for mathematical questions.	I can: • apply everyday examples of my own to the impact of science on society. • link information between the key scientific concepts with some guidance.

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	I can:	I understand:	I can:
6	I can: • state the relationships between different scientific topics. • give examples of where science topics overlap.	I understand: • key scientific concepts interlink. • evaluate topics based on new information given.	I can: • link previous knowledge on topics to outline the relationships between scientific concepts.
7	I can: • describe all key scientific concepts and explain the relationships between them • evaluate information and theories based on scientific evidence	I understand: • the links between scientific concepts and can clearly describe them • the influence of different concepts working together on given situations	I can: • apply my knowledge of different scientific concepts working together in a new context
8	I can: • explain all scientific concepts and relate them to the topics learn. • confidently communicate my ideas and findings using appropriate terminology	I understand: • the impact of science on the outside world and can critically evaluate concepts in entirely new contexts • How research findings can aid development of new theories and concepts of scientific phenomena	I can: • independently analyse data using appropriate math and graphical skills • apply knowledge of everyday life and impacts on society to evaluations of different concepts and theories
9	I can: • clearly and accurately outline all main scientific concepts and extend my knowledge to all areas of science, including new and unrelated theories	I understand: • the impact science and its discoveries have had, and will continue to have on many different aspects worldwide and can attempt an explanation of any using my current level of knowledge	I can: • apply new information to what I already know about each scientific concepts and understand fully how it links to other areas both within, and outside of science