

Science	Demonstrating and applying scientific knowledge & understanding	Processing and analysing data	Carrying out and analysing procedures
Beginning	State scientific facts/ definitions with limited precision	Identify if the values in a data table or on a simple graph are increasing or decreasing	Name the piece of apparatus needed to carry out a procedure Record a value in a results table during an investigation
Developing	State scientific facts/ definitions using precise scientific vocabulary	Add a data point to a graph using a value in a table or vice versa Process data to calculate changes in temperature, mass, length or time during an experiment	Name the unit that a quantity is measured in and add this to a data table or graph Read a value precisely from a piece of apparatus, with an analogue scale, such as a measuring cylinder or analogue thermometer
Secure	Compare, describe or explain scientific facts to show understanding of the underlying science	State the pattern/ trend seen on a simple graph or in a table of results Calculate the mean for a data set	From a description of an investigation identify which factor/ variable has been changed and which has been recorded/ measured
Confident	Compare, describe or explain scientific facts to show a depth of understanding of the underlying science	State the pattern/ trend seen on a graph or in a table, making a precise link between the variables Identify if a data set contains any anomalous results	Identify the dependant and independent variables needed to carry out an investigation to test a prediction/ hypothesis Identify at least one variable that would need to be controlled to make an investigation a fair test
Exceptional	Apply knowledge and understanding of concepts in general situations, linked to the topic currently being studied	Use the terms directly or inversely proportional appropriately to describe the trend seen in a line graph	Describe how to carry out a procedure or investigation, naming the apparatus needed and drawing a diagram to show its arrangement if appropriate
Beyond	Apply knowledge and understanding of concepts in general situations, linked to both the current topic and those previously studied	Calculate the mean for a data set, ensuring that anomalies are accounted for, and values are rounded to an appropriate level of precision	Suggest improvements/ modifications to a described practical procedure so that the results collected would be more precise