

Skills Progression – Science

	Scientific Enquiry	Gathering Evidence	Recording Results
Yr R	Talk about similarities and differences.	Make observations based on the immediate environment.	Use pictures and diagrams to record observations.
Yr 1	Describe in order to classify. Complete surveys to identify patterns and support classification.	Begin to gather evidence to describe the differences and similarities between different organisms, habitats and objects. Begin to gather evidence to describe how things change over time or as a result of something happening (e.g. how some things spring back when bent and others don't, or plants wilt when they are not watered).	Complete prepared Venn diagrams and bar charts to show comparisons. Complete prepared time lines and tables that show how one and more than one thing changes over time.
Yr 2	As above and: Compare differences and changes. Describe the effect of changing things. Using secondary sources including the internet and 'experts'.	Gather evidence to describe the differences and similarities between different organisms, habitats and objects. Gather evidence to describe how things change over time or as a result of something happening (e.g. how some things spring back when bent and others don't, or plants wilt when they are not watered). Begin to gather evidence to describe the relationship between variables and patterns (cause and effect) by identifying what must be changed and what kept the same.	Create Venn diagrams and bar charts to show comparisons. Create time lines and tables that show how one and more than one thing changes over time. Complete prepared results tables with the independent variable increasing in one column and the dependent variable in the other.
Yr 3	As above and: Begin to look for relationships between variables (patterns).	Begin to recognise that factors other than the independent variable may have an effect and seek to control these factors (control factors). Gather evidence to describe and classify patterns of behaviour, characteristics and properties of materials and with support make generalisations from data samples. Use a range of equipment that allow for standard measure (thermometers, data loggers, measuring cylinders, force meters, digital balances).	Complete prepared results tables with the independent variable increasing in one column and the dependent variable in the other.
Yr 4	As above and: Look for relationships between variables (patterns).	Recognise that factors other than the independent variable may have an effect and seek to control these factors (control factors). Gather evidence to describe and classify patterns of behaviour, characteristics and properties of materials and make generalisations from data samples. Use a range of equipment accurately that allow for standard measure (thermometers, data loggers, measuring cylinders, force meters, digital balances).	With support design results tables with independent variable increasing in one column and dependent variable in the other.
Yr 5	As above and: Begin to look for important values (e.g. biggest, smallest, optimum).	Recognise that conclusions may be uncertain due to difficulties controlling and measuring variables accurately. Understand that repeating experiments helps to identify what the true value is.	Begin to independently design results tables with the independent variable increasing in one column and the dependent variable in the other. Begin to choose to repeat experiments as appropriately and find averages of repeated measurements.

		Begin to adapt experiments to produce more precise conclusions when the question requires it, especially when seeking to find maximum, minimum or specific values.	Use prepared scatter graphs to identify precise relationships and important values.
Yr 6	As above and: Look for important values (e.g. biggest, smallest, optimum).	Recognise that conclusions may be uncertain due to difficulties controlling and measuring variables accurately and that measurement always introduces some error. Understand that repeating experiments helps to identify what the true value is and that data points far from the mean are likely to be inaccurate and should be discounted when averaging. Adapt experiments to produce more precise conclusions when the question requires it, especially when seeking to find maximum, minimum or specific values.	Independently design results tables with the independent variable increasing in one column and the dependent variable in the other. Choose to repeat experiments as appropriately and find averages of repeated measurements. Use scatter graphs to identify precise relationships and important values.

Based on documents to support assessing science by Richard Aplin from the science HIAS team.