



SCIENCE

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning Scientific Tests Children know about similarities and differences in relation to...objects, materials and living things. They make observations of animals and plants and explain why things occur, and talk about changes Vocab examples: Same, different, change (...over time), watch, observe. Float, sink, hot, cold, soft, hard, rough, smooth, animal, human, grow		1a) Ask some simple scientific questions, generated as a class 1b) Identify some key scientific features.	2a) Ask simple scientific questions. 2b) Identify key scientific features.	3a) Ask increasingly relevant scientific questions. 3b) Recognise that questions can be answered in different ways.	4a) Explore ideas by asking a range of relevant scientific questions. 4b) Predict outcomes using previous experience and knowledge.	5a) Use appropriate scientific language when generating scientific questions. 5b) Make predictions based on scientific knowledge and understanding.	6a) Select and plan accurately the most appropriate type of scientific enquiry for answering scientific questions.
		Prediction, expected & unexpected result, investigation, experiment, change, question, planning	Conclusion, evidence, method, data, comparative test	Hypothesis, reasoning, variables linked with fair test including independent /dependent & controlled variables, enquiry, accuracy	Limitations	Choosing independent/dependent /controlled variables	Accuracy v precision, anomaly, uncertainty



Enquiring and Testing			1c) Test ideas suggested to them. 1d) Use first hand experiences to answer questions.	2c) Suggest how to find things out. 2d) Begin to select equipment from a limited range.	3c) Put forward own ideas about how to find the answers to questions. 3d) Carry out a fair test with support.	4c) Recognise and identify some of the factors needed to make a test 'fair'. 4d) With help, begin to recognise that scientific ideas are based on evidence.	5c) Recognise the key factors to be considered when carrying out a fair test. 5d) Demonstrate how to change one factor (variable) whilst keeping others the same (control).	6b) Recognise when and how to set up comparative and fair tests and clearly explain which variables need to be controlled and why. 6c) Describe evidence for a scientific idea.
			Observe, identify, distinguish, equipment, explore, sort, compare, group, describe	Explain, contrast, properties, notice, unit of measurement, suitability, scales, capacity, mass,	Enquiry, volume v capacity, weight v mass, criteria, systematic observations, gathering, classifying, recording, investigating variables linked with fair test (stating the different variables independent/dependent /controlled)		Demonstrate, choosing the variables – independent/dependent /controlled	



Observing and Communication			1e) Make observations using appropriate senses. 1f) Use simple charts and pictures to communicate findings.	2e) Describe observations using some scientific vocabulary. 2f) Use simple equipment provided to aid observation.	3e) Record observations in written, pictorial and diagrammatic forms. 3f) Select equipment independently from a limited range.	4e) Make group decisions about what to observe, how long to observe for, and the type of equipment needed. 4f) Carry out measurements with increasing accuracy.	5e) Record observations systematically. 5f) Begin to make general statements. 5g) Make a series of observations, comparisons and measurements with increasing precision.	6d) Gather, record, classify and present data in a wide range of ways. 6e) Make independent decisions about what to observe, what measurements to use and how long to measure them for.
			Senses, recognise, verbalise, discuss, notice, be curious, differences, patterns, observe, pictogram, label	Similarities and differences, relationships primary and secondary sources, reset, tally, bar chart	Draw conclusions, systematic, keys, annotate classification, tables – change and measure, communicate findings, audience	Accuracy, graphs change and measure	Compare and contrast, justify, systematic and random error, calibrate, line graphs, scatter graphs, tables independent/dependent	Validity, causal relationships, explanation, uncertainty, refute v support arguments, graphs independent/dependent



Considering Evidence and Evaluating			1g) Make simple comparisons. 1h) Say whether what has happened was what was expected.	2g) Begin to recognise when a test or comparison is unfair. 2h) Begin to draw simple conclusions from what happened.	3g) Begin to look for patterns when collecting and evaluating data. 3h) Suggest some improvements to their test.	4g) Identify changes, patterns, similarities and differences in order to draw conclusions. 4h) Suggest improvements and identify new questions arising from data.	5h) Draw conclusions that are consistent with the evidence. 5i) Offer simple explanations for any differences in their results.	6f) Look for a range of different relationships in data and begin to identify evidence that refutes or supports ideas. 6g) Identify when tests need to be repeated in order to obtain reliable results.
			Differences, expected, sensible guess, compare	Similarities, improvements, estimate, conclusion, fair, unfair, recognizing patterns	Finding the odd one out from the pattern, compare, evaluate,	Analyse, improvements, refine, reject, hypothesis, alter	Anomaly, repeat in order to refine and prove, justify	Refute/support, relationships