Key Stage 3 Science Assessment Grid

	A	B	C	D	E	F	G	H	I
Theory Strand *<u>Demonstrate and apply</u> knowledge and understanding of scientific ideas, techniques and procedures*	Remember some scientific keywords Name some key scientific principles Identify simple similarities and differences between ideas	State key scientific principles Write a short answer based on scientific fact Complete a sentence or diagram Label a diagram Identify theory in everyday contexts	Describe scientific concepts, recalling some facts, events or processes in an accurate way Define the meaning of some scientific keywords and concepts Choose the most accurate answer from a range of alternatives	Describe and explain scientific concepts, recalling some facts, events or processes in an accurate way Describe some real world examples which demonstrate scientific concepts Compare simple ideas in science	Describe and explain how real world examples apply to scientific concepts Define the meaning of most scientific keywords and concepts Can use simple models to describe scientific concepts	Outline multiple descriptions and explanations of scientific concepts Accurately compare different scientific concepts, outlining similarities and differences with precision	Compare and contrast different scientific concepts using examples to support understanding A breadth and depth of scientific definitions used	Apply scientific knowledge to unfamiliar concepts Describe how scientific evidence can support or disprove scientific ideas Suggest ideas by applying knowledge and understanding to a new situation	Explain how evidence supports accepted scientific ideas or contribute to questions science cannot answer Make connections between abstract ideas
Interpret Strand *<u>Analyse</u> information and ideas to interpret and evaluate; make judgements and draw conclusions*	Write a simple, scaffolded conclusion Perform a basic calculation with scaffolding	Draw partially complete conclusions from data Perform a basic calculation	Draw simple conclusions from qualitative and quantitative data Write a simple evaluation Identify given data to make simple calculations	Use and quote data to draw conclusions Write an evaluation based on data Make simple predictions based upon data Recall an equation to perform calculations	Outline simple advantages and disadvantages based on simple data Write an evaluation using data to support response Recall multiple equations and mathematical skills to perform calculations	Assess information provided to make conclusions based upon scientific knowledge, making simple predictions Outline advantages and disadvantages, quoting data to support decisions Choose the most appropriate equation to support with a calculation	Analyse qualitative and quantitative data and draw logical conclusions and making predictions Evaluate data using quantitative information to justify reasoning Manipulate data to use in a correct equation	Explain and justify how evidence may have limitations and critically evaluate the use of data to make conclusions Analyse qualitative and quantitative data and draw logical conclusions supported by evidence Attempt multi-step calculations with some degree of success	Explain and justify how both qualitative and quantitative evidence may have limitations and critically evaluate the use of data to make conclusions Use a range of mathematical skills to perform complex, multi-step scientific calculations
Practical Strand *<u>Demonstrate</u> knowledge and understanding of investigative science and experimental procedures to obtain results used to make conclusions*	Name several pieces of equipment Identify a variable Follow a provided method Identify one hazard and the risk it might pose Make some measurements or simple observations. Some data may be missing or inaccurate. Give a statement of what results show	Name key pieces of equipment required for a specific experiment Write a simple prediction Write a simple method but this may not lead to valid outcomes Make a full set of measurements or observations in a table but there may be some inaccuracies Present data in a graph but with consistent errors Give a simple description of what results show Suggest a simple improvement for an experiment	Write a simple method which would produce valid results Identify independent, dependent and one control variable Make a full set of measurements or observations in a table Identify a hazard, risk and how to reduce risk Present data in appropriate graph with some labels but with some errors Use scientific ideas, using two scientific keywords, to conclude results	Write a concise method which would produce valid results Prediction is supported by scientific key terms Identify multiple hazards, their risk and how to reduce risk Graph has fully labelled axes and units with mostly accurate points Identify a simple trend or pattern in results Suggest an improvement and given a reason	Describe how different pieces of equipment are used in an experiment which can be followed to obtain repeatable data Identify independent, dependent and multiple control variables Make a set of measurements with appropriate units in appropriate table Graph has fully labelled axes, units and line of best fit or labelled bars Use data from your table to support your conclusion	Outline experiment in detail which can be followed to obtain repeatable data Explain your prediction using your scientific understanding Make a set of measurements with suitable intervals in an appropriate table Give quantitative relationship in their results Evaluate effectiveness of method, making practical suggestions to improve	Explain most appropriate equipment for experiment Identify all variables and describe which may be difficult to control Describe how a method could be adapted to reduce risk Make a set of measurements with suitable intervals and repeatable data in an appropriate table Give quantitative relationship in their results accounting for full trends and patterns Suggest reasons based on scientific knowledge for limitations in data collected	Justify choice of different pieces of equipment Explain why chosen method will give repeatable and precise results Explain quantitative relationship between variables	Assess strength of evidence Explain unexpected observations or measurements Explain modifications to method to improve repeatability and reproducibility

Key Stage 3 Assessment Pathway Plan

Year 7		
Pathway	**Assessment Point 1**	**Assessment Point 2**
Foundation (99-)	A	A-B
Intermediate (100-110)	A-B	B-C
Higher (111+)	B-C	C-D

Year 8		
Pathway	**Assessment Point 1**	**Assessment Point 2**
Foundation	B-C	B-C
Intermediate	C-D	D-E
Higher	D-E	E-F

Year 9		
Pathway	**Assessment Point 1**	**Assessment Point 2**
Foundation	C-D	C-D
Intermediate	E-F	E-F
Higher	F-G	G-H