Progression of skills: Working Scientifically							
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Posing questions	WS1	I can explore the world around me I can raise my own simple questions.	I can recognise there are different ways to answer a question I can respond to suggestions of how to answer questions	I am beginning to raise further questions during the enquiry process. I consider what makes a testable question.	I am beginning to recognise that there are different types of enquiries that are suitable for different questions. I am beginning to make suggestions about how different questions could be answered.	I raise questions throughout the enquiry process. I can identify testable questions.	I can select the most appropriate enquiry method to answer questions and give justification.
Planning	WS2	I am beginning to recognise whether a test is fair.	I can order a simple method. I can decide if suggested observations are suitable.	I am beginning to select from options which variables will be changed, measured, and controlled. I can suggest what observations to make and how long to make them for. I can plan a simple method, verbally and in writing.	I am beginning to write a simple method in numbered steps. I can select and begin to decide what simple equipment might be used to aid observations and measurements.	I can suggest which variables will be changed, measured, and controlled. I can explain their decisions about what observations to make and how long to make them for. I can write a method including detail about how to ensure control variables are kept the same	I can write a method that considers reliability by planning repeated readings. I can suggest the most appropriate equipment to make observations and measurements and justifying their choices.
Predicting	WS3	I make suggestions about what might happen, often justifying with personal experience.		I make predictions using scientific knowledge to explain. I am beginning to consider cause and effect when making predictions	I can predict a trend by considering how the changing variable will affect the measured variable.	I make increasingly scientific predictions informed by my knowledge and evidence.	I can make predictions using scientific language, making links between topics.
Observing Qualitative Date	WS4	I can use my senses to describe, in simple terms, what I notice or what has changed.		I can use my senses to describe, in more detail and with simple scientific vocabulary, what I notice or what has changed.		I can use my senses to describe, in detail and with a broader range of scientific vocabulary, what I notice or what has changed.	

Measuring (quantitative data)	**WS5**	I can use non-standard units to measure and compare. I am beginning to use standard units to measure and compare. I am beginning to use measuring equipment.	I can read simple numbered scales.	I can use standard units to measure and compare. I can use measuring equipment with increasing accuracy.	I am able to read scales with unmarked intervals between numbers.	I can use standard units to measure and compare with increasing precision (decimals).	I read a wider variety of scales with unmarked intervals between numbers.
Researching	**WS6**	I can gather specific information from one simplified, specified source.		I can gather specific information from a variety of sources.		I can gather answers to open-ended questions from a variety of sources.	
Recording (diagrams)	**WS7**	I can draw and label simple diagrams.		I am beginning to draw more scientific diagrams using some standard symbols and scientific vocabulary		I can draw scientific diagrams by: • Using a wider range of standard symbols. • Drawing with increasing accuracy. • Labelling with a broader range of scientific vocabulary. • Annotating diagrams to explain concepts and convey opinions.	
Recording (tables)	**WS8**	I can use a prepared table to record results. • Numbers. • Simple observations. • Tally frequency.		I can use tables with more than two columns. I can identify and add headings to tables. I am beginning to design simple results tables		I can use tables with columns that allow for repeat readings. I can suggest headings to tables, including units. I can design results tables with increasing independence with consideration of variables where applicable.	

Grouping and Classifying	**WS9**	I can group based on visible characteristics. I can organise questions to create a simple classification key.	I can calculate the mean/average.	I can group based on visible characteristics and measurable properties. I can populate a pre-prepared branching and number key. I can choose appropriate questions for classification keys.		I can group in a broader range of contexts. I can organise the layout of number and branching keys. I can formulate appropriate questions for classification keys.	
Graphing	**WS10**	I can represent data using pictograms and block charts.		I can represent data using bar charts. I can draw bars with greater accuracy. I can read the value of bars with greater accuracy		I can represent data by using line graphs and scatter graphs. I can plot points with greater accuracy.	I can read the value of plotted points with greater accuracy.
Analysing and drawing conclusions.	**WS11**	I can use my results to answer simple questions. I am beginning to recognise when results or observations do not match my predictions.		I can write a conclusion to summarise findings using simple scientific vocabulary. I am beginning to suggest how one variable may have affected another. I am beginning to quote results as evidence of relationships.	I can identify data that does not fit a pattern (anomalous data). I can recognise when results or observations do not match my predictions. I am beginning to use identified patterns to predict new values or trends.	I can write a conclusion to summarise findings using increasingly complex scientific vocabulary. I can suggest with increasing independence how one variable may have affected another. I can quote relevant data as evidence of relationships.	I am able to identify anomalies in repeat data and excluding results where appropriate. I am able to compare individual, class and/or model data to the prediction and recognising when they do not match. I am able to use identified patterns to predict new values or trends.
Evaluating	**WS12**	I am beginning to recognise whether a test is fair or not.		I am beginning to identify steps in the method that need changing and suggest improvements. I am beginning to identify which variables were difficult to control and suggesting how to better control them.		I identify steps in the method that need changing and suggest improvements. I can identify which variables were difficult to control and suggest how to better control them. I can comment on the degree of trust by also reflecting on:	

				I am beginning to identify new questions that would further the enquiry.		• Accuracy (human error with equipment). • Reliability (repeating results). • Sources of information (e.g. websites, books). I can pose new questions in response to the data, that would extend the enquiry. I can decide what data to collect to further test direct relationships.	