MPS WORKING SCIENTIFICALLY SKILLS PROGRESSION	KS1		LKS2 MIDHURST C OF E PRIMARY SCHOOL		UKS2	
ASPECT	End of Year 1	End of Year 2	End of Year 3	End of Year 4	End of Year 5	End of Year 6
Asking and answering questions	*Use everyday language/begin to use simple scientific words to ask or answer a scientific question.*	*Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including the use of secondary sources such as books/video clips.*	*Use ideas to pose questions independently about the world around them.*	*Suggest relevant questions and recognise that they could be answered in a variety of ways including use of other sources.*	*Raise different types of scientific questions and hypotheses. Answer questions using straightforward scientific evidence.*	*Pose/select the most appropriate line of enquiry to investigate scientific questions.*
Investigating	*Follow instructions to complete a simple test individually or in a group.*	*Do things in the correct order following a set of instructions in the form of a method. Begin to recognise the idea of a fair test.*		*Make decisions about different enquiries, including recognising when a fair test in necessary and begin to identify variables.*	*Plan a range of science enquiries, including comparative and fair tests.*	*Select and plan the most suitable line of enquiry, explaining which variables need to be controlled and why, in a variety of comparative and fair tests.*
It is our intention at MPS to ensure that all students are engaged in the five different areas of enquiry: Observation over time; Pattern seeking; Identifying, classifying and grouping; Comparative and fair testing; Research using secondary sources.						
Observing	*Observe objects, materials and living things and describe, in simple terms, what they can see.*	*Observe something closely, possible with the use of equipment. Describe any changes that can be observed over a period of time.*	*Make decisions about what to observe during an investigation.*	*Make systematic and careful observations.*	*Plan and carry out comparative and fair tests, making systematic and careful observations.*	*Make their own decisions about which observations to make, using tests results and observations to make predictions or set up further tests.*
Equipment and measuring	*Use simple, non-standard measurements for a practical task.*	*Use simple scientific equipment, such as hand lenses or egg timers to take measurements and carry out simple experiments.*	*Take accurate measurements using standard units.*	*Take accurate measurements using standard units and a range of equipment including thermometers or data loggers.*	*Take measurements using a range of scientific equipment with increasing accuracy and precision.*	*Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. Decide how long to take measurement for, checking results with additional readings and gaining an average.*
Identifying and classifying	*Sort and group objects, materials and living things, with help, according to their observable features.*	*Decide, with help, how to group materials, living things and objects noticing changes over time and beginning to see patterns.*	*Talk about criteria for grouping, sorting and categorising, beginning to see patterns and relationships.*	*Identify similarities/differences/changes when talking about scientific processes. Use and begin to create simple keys.*	*Use and develop keys to identify, classify and describe living things and materials.*	*Identify and explain patterns seen in the natural environment.*
Recording and reporting findings	*Talk about their findings and begin to explain what they have found out.*	*Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary.*	*Record their findings using scientific language and present in note form, writing frames, diagrams, tables and charts.*	*Choose appropriate ways to record and present information, findings and conclusions for different audiences.*	*Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar and line or comparative graphs.*	*Choose the most effective approach to record and report results, linking to mathematical knowledge and understanding.*
Analysing data	*Use everyday/simple scientific language to ask or answer a given question on data.*	*Identify simple patterns and/or relationships using simple comparative language.*	*Gather, record and use data in a variety of ways to answer a simple question.*	*Identify, with help, changes, patterns, similarities and differences in data to help form conclusions. Use scientific evidence to support their findings.*	*Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas. Make connections between anomalous results and reasons for this.*	*Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.*
Drawing Conclusions and Evaluating	*Explain, with some help, what they think they have found out.*	*Begin to use scientific language to explain what they have found out.*	*Draw, with help, a simple conclusion based on evidence from an enquiry/observation.*	*Use recorded data to make predictions, pose new questions and suggest improvements to future enquiries.*	*Use a simple model of communication to justify their conclusions on a hypothesis. Begin to explore anomalies in an evaluative sense. Begin to recognise how scientific ideas and theories change over time.*	*Identify validity of conclusion and required improvement to methodology. Discuss how scientific ideas develop over time.*