Grimsargh St Michael's CE Primary School
Science (working scientifically) Progression of Skills- KS1

This progression of skills document details how each key skill develops sequentially in Science (working scientifically) throughout school.

Areas of study	EYFS	
WORKING SCIENTIFICALLY (AT 1) **Sort / group / compare / classify / identify**	Talk about and draw pictures about what they have seen. Find things that are similar and different. Sort uses senses and match. Ask a question. Talk to people about what they do. Talk to people about how things work. Work with others on a science task. With help follow movements to act out the science they are learning about. Come up with new things to try/test. Use simple equipment to make observations. With prompts say what they have seen/what has happened. Build up resilience and try different ideas**.**	
	Year 1	**Year 2**
WORKING SCIENTIFICALLY (AT 1) **Sort / group / compare / classify / identify**	Name/identify common examples and some common features. With help, decide how to sort and group objects, materials or living things. Say/identify how different things change objects, materials or living things. Make comparisons between simple observable features/characteristics of objects, materials and living things. Say how things are similar or different. Recognise basic features of objects, materials and living things.	Compare and contrast… a variety of things - focusing on the similarities as well as the differences] including how different things change over different periods of time [objects, materials or living things]. Sort and classify things according to a variety of different features (e.g. "I know it is living because it... and it...). Decide how to sort and group objects, materials or living things. Name/identify a variety of common features and/or uses for objects, materials or living things. Name/Identify common examples and some common features.
Research *finding things out using a wide range of secondary sources of information and recognising that scientific ideas change and develop over time*	Find out about the work of famous scientists (historical & modern day) Use simple and appropriate secondary sources (such as books, photographs and videos) to find things out / find answers. Ask people questions.	Find out about the work of famous scientists - historical & modern day Use simple and appropriate secondary sources (such as books, photographs and videos) to find things out / find answers. Ask people questions
Recording of 'Explore / Observe'	Begin to communicate and record their findings using simple scientific language. Begin to use simple scientific language to talk about what they have.	Record and communicate their findings using simple scientific language. Use their own ideas and their observations to offer answers to questions.

developing a deeper understanding of a wide range of scientific ideas encountering more abstract ideas	Use their own ideas to offer answers to questions. Observe and discuss / talk about / draw/ keep records of changes over different periods of time. Observe closely and discuss / talk about / draw /record the features/properties of things in the real world.	Observe and describe simple processes/cycles with several steps e.g. growth cycle, simple food chain, saying how living things depend on one another. Recognise and describe a series of changes over time (e.g. growth). Observe, and record make drawings to represent things in the real world with some accuracy.
Questioning *asking their own questions about scientific phenomena*	Ask simple questions stimulated by the world around them. Demonstrate curiosity by the questions they ask.	Raise their own questions based on or linked to things they have observed.
Planning *using different types of scientific enquiry making decisions about and explaining choices for testing*	Begin to choose/suggest ways to find answers. Perform simple tests/comparative tests. Talk about ways of answering their questions. Use different types of scientific enquiry. Experiment with a wide variety of things.	Set up a comparative test. In a group choose/suggest ways in which they might answer scientific questions. Suggest a [practical way] to find answers to their questions [and listen to the suggestions of others. Use different types of scientific enquiry to answer their own questions.
Equipment and measurement *increasing complexity with increasing accuracy and precision make their own decisions about the data to collect*	Observe using non-standard units e.g. how many lolly sticks/cubes/handfuls, etc. Observe closely, using simple equipment (e.g. hand lenses, egg timers). Observe closely using their senses	Observe more accurately by measuring non-standard and standard units. Use their senses, simple measurements and equipment to gather data with increasing independence. Gather data to help in answering questions.
Communicating Recording *recording data, reporting findings, presenting findings*	Present their findings in a range of ways using templates where necessary e.g. talk/discuss; write/describe; draw pictures; annotated photographs; video; make/construct tables, charts and displays. Communicate their ideas to a range of audiences in a variety of ways. Begin to use some simple scientific language.	Record and communicate their findings in a range of ways with increasing independence e.g. talk/discuss; write/describe; draw pictures; take photographs; video; make/construct a variety of tables, charts [including simple, bar charts produced as a group and displays. Make some choices on how to communicate their ideas to a range of audiences in a variety of ways. Use simple scientific language in their recording. Record simple data with some accuracy. Record data to help in answering questions.

Describe results *Looking for patterns analysing functions, relationships and interactions more systematically*	Sequence photographs of an event/observation. Observe changes over different periods of time and discuss/talk/record about what has happened. Talk/ discuss/ describe/record about what they have seen/ what has happened.	With guidance, begin to notice patterns and relationships. Order their findings. Recognise if results matched predictions. Talk/ discuss/ describe/record with some accuracy what they have seen/ what has happened.
Explain results *Draw conclusions based on evidence*	Read and spell scientific vocabulary Suggest how things happen. Use their observations and ideas to suggest answers to questions. Begin to use simple scientific language to talk about what they have found out. Talk about what they have found out.	Begin to explain how they know…use the word because 'it is because….'/ suggest how and/or why things happen. Draw on use their results and their own experience to answer their questions. Begin to use simple scientific language to describe or explain what they have found out. Read and spell scientific vocabulary.
Collaborating		Listen to the suggestions of others.