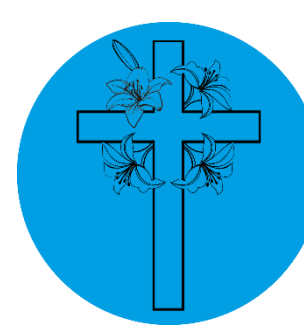


# Subject skills progression

## Subject: Science

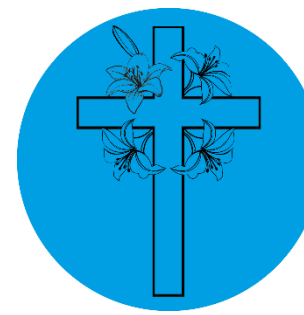
### Working Scientifically Progression of Skills

Skill area	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Asking and answering questions</b>	Use everyday language/ begin to use simple scientific language to ask or answer scientific questions.	Suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books and video clips.	Use ideas to pose questions independently about the world around them.	Suggest relevant questions and know they could be answered in a variety of ways including using secondary sources such as ICT. Answering questions using straightforward scientific evidence.	Raise different types of scientific questions and hypotheses.	pose/select the most appropriate line of enquiry to investigate scientific questions.
<b>Investigating</b>	Following instructions to complete a simple test individually or in a group.	Do things in the correct order when performing a simple test and begin to recognise when something is unfair.	Discuss enquiry methods and describe a fair test.	Make decisions about different enquiries, including recognising when a fair test is necessary and begin to identify variables.	Plan a range of scientific 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.
<b>Observing</b>	Observe objects, materials and living things and describe what they see.	Observe something closely and describe change over 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	Make their own decisions about which observations to make using test



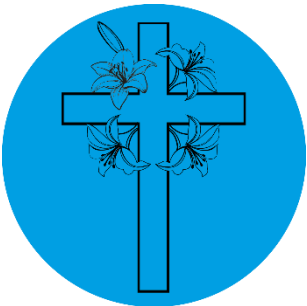
## Subject skills progression

					careful observations.	results and observations to make predictions or set up further comparative or fair tests.
<b>Equipment and measuring</b>	Use simple, non-standard measurements in a practical task.	Use simple equipment such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.	Take accurate measurements using standard units.	Take accurate measurements using standard units and a range of equipment, including thermometers and data loggers.	Take measurements using a range of equipment with increasing accuracy and precision.	Choose the most appropriate equipment in order to take measurements, explaining how to use it accurately. Deciding how long to take measurements for, checking results with additional readings.
<b>Identifying and classifying</b>	Sort and group objects, materials and living things with help, according to simple observational features.	Decide with help how to group objects, materials and living things, 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.
<b>Recording and</b>	Talk about their	Gather data, record	Record their findings	Choose appropriate	Record data and	Choose the most



## Subject skills progression

<b>reporting on findings</b>	findings and explain what they have found.	and talk about their findings in a range of ways, using simple scientific vocabulary.	using scientific language and present in note form, writing frames, diagrams, tables and charts	ways to record and present information, findings, and conclusions for different audiences (e.g. displays, oral or written explanations).	results of increasing complexity using scientific diagrams, labels, classification keys, tables, bar or line graphs and models.	effective approach to record and report results, linking to mathematical knowledge.
<b>Analysing Data</b>	Use everyday or simple scientific vocabulary to ask and/or answer a question on given 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	Identify and explain causal relationships in data and identify evidence that supports or refutes their findings, selecting fact from opinion.
<b>Drawing Conclusions</b>	Explain, with help, what they think they have found out.	Use simple scientific language to explain what they have found out.	Draw, with help, a simple conclusion based on evidence from an enquiry or observation	Use recorded data to make predictions, pose new questions and suggest improvements for further enquiries	Use a simple mode of communication to justify their conclusion on a hypothesis. Begin to recognise how scientific ideas change over time.	Identify validity of conclusion and required improvement to methodology. Discuss how scientific ideas develop over time.



**Subject skills progression**