 **Holy Cross Catholic Primary School**

Science Working Scientifically Progression Statements – End of year expectations

**NOTE:** Our main science progression statements are on a separate document which can be found on our website.

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|  | **Plan** **investigations, enquiries and answer questions**  | **Select and use appropriate equipment**  | **Gather, Record Data and Present Data**  | **Use appropriate language, analyse results and draw conclusions**  | **Present conclusions and raise further points for enquiry**  |
| **Year** **1**  | • Ask simple questions and recognise they can be answered in different ways with a new object or subject | * Observe closely, using simple equipment
* Confidently handle simple equipment such as magnifying glasses, sieves etc.
* Perform simple tests using given equipment
* Using equipment and

methods as suggested by an adult. | * Identify and classify
* Classify using simple models (e.g. 2 circle Venn diagrams) based on one different characteristic.
 | * Use observations and ideas to suggest questions
* Answer simple questions which have been given by a teacher
 | * Gather and record data to help in answering questions
* Use raw data to answer simple questions e.g. Which day had more rainfall
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| **Year 2**  | • Recognise that questions they – or others – ask can be answered in different ways. | * Observe closely, using simple equipment
* Describe the effect of using the equipment e.g. describe a minibeast through a magnifying glass
* Perform simple tests using equipment
* Begin to suggest ideas for equipment to be used.
 | * Identify and classify
* Classify using simple models (e.g. 2 circle Venn diagrams) based on one different characteristic.
* Use more detailed models e.g. 3 circle Venn diagrams, Carroll diagrams etc.
 | * Use observations and ideas to suggest questions
* Answer simple questions which have been given by a teacher
* Suggest answers to questions of their own and those of classmates based on their own ideas and observations.
 | * Gather and record data to help in answering questions
* Use raw data to answer more complex questions e.g. How much more rainfall was there on Monday than on Tuesday?
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| **Year 3**  | • Questions are relevant to the unit being studied and are answered using enquiries suggested by adults or others.  | • •  | Set up simple practical enquiries, comparative and fair tests Set up simple enquiries when given the correct equipment.  | * Make systematic and

careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers * Take measurements

over intervals, using measurements learned in Maths/Science  | * Gather, record, classify and present data in a variety of ways to help in answering questions.
* Suggest the best ways of gathering, recording and classifying data.
 | * Record findings using

simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. * Use simple, scientific language, drawings and bar charts.
 | * Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
* Be able to orally discuss findings, using basic scientific language, independently, and provide written explanations with support.
* Use results to draw simple conclusions and make predictions for new values.
* Use scientific evidence to answer simple questions. (supported)
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| **Year 4**  | • Suggest the type of Scientific Enquiry most suitable for answering questions. \*  | • •  | Set up simple practical enquiries, comparative and fair tests Choose appropriate equipment from a selection of relevant and non-relevant equipment.  | * Make systematic and

careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers * Take more accurate measurements, and suggest a suitable timeframe for enquiries.
 | * Gather, record, classify and present data in a variety of ways to help in answering questions.
* Record data with increasing accuracy.
* Present data in a wider variety of ways and begin to notice patterns in data e.g. curves in line graphs and suggest possible reasons for this.
 | * Record findings using

simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. * Use labelled diagrams, keys and tables.
 | * Report on findings from enquiries, including oral and written

explanations, displays or presentations of results and conclusions * Be able to present results and conclusions of what they have found to a group or class, using more detailed scientific vocabulary.
* be able to suggest improvements and raise further questions.
* Use evidence to support findings (or evidence which contradicts their findings). (supported)
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|  | **Plan** **investigations, enquiries and answer questions**  |  | **Gathering Evidence**  | **Gather, Record Data and Present Data**  | **Use appropriate language, analyse results and draw conclusions**  | **Present conclusions and raise further points for** **enquiry**  |
| **Year 5**  | • Plan different types of enquiry to answer questions, with support recognising variables.  | • •   | Take measurements, using a range of scientific equipment, with increasing accuracy and precision. Take measurements using a range of equipment, including confidently using data loggers. Begin to take repeat readings for the purpose of ‘fair test’ when necessary.  | * Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar charts and line graphs.
* Record more complex data, using more detailed scientific diagrams and labels, tables, bar and line graphs.
* Using test results to make predictions to set up further comparative and fair tests.
* Use others’ test results to set up further comparative and fair tests (based around the same hypothesis/question).
 | • Report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations  | • Identify scientific evidence that has been used to support ideas or arguments.  |
| **Year 6**  | • Recognise and control variables where necessary, distinguishing between ‘control’  | • •   | Take measurements, using a range of scientific equipment, with increasing accuracy and precision. Identify when a repeat reading is appropriate/necessary  | * Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar charts and line graphs.
* Use classification keys and scatter graphs
* Use their own test results to set up further comparative and fair tests (based around

an adapted hypothesis/question).  | * Report and present findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations
* Report and present on causal relationships.
 | * Identify scientific evidence that has been used to support or refute ideas or arguments.
* Identify evidence that has been used to support **or refute** ideas or arguments.
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