EYFS/KS1	EYFS	Year 1	Year 2
	The statements in red are the Working Scientifically objectives as stated in the National Curriculum. The black statements break down each objective in to smaller steps and show progression between year groups.		
Plan	Explore during their play and repeat an action/test making it obvious they are try to find something out and see if it always results in the same result. Recognises when a simple comparison is unfair.	Ask simple questions and recognising that they can be answered in different ways. I can explore the world around me using my senses. I can ask simple questions confidently. I can with help begin to choose ways to try and answer a question I can with support take a few guided planning decisions with 2 choices provided by my teacher. I can explore a variety of ways to collect data.	Ask simple questions and recognising that they can be answered in different ways. I can confidently ask simple questions and recognise they can be answered in different ways. I can with help choose ways to try and answer a question. I can with support suggest ideas to carry out an investigation. I can make own decision on how to collect data once data needed has been outlined. I can make a simple prediction.

St Vincent's Catholic Primary School Progression in scientific skills EYFS/KS1

Do	EYFS: Observe closely using all of their senses as appropriate. During their play, repeat an action/test making it obvious they are trying to find something out and see if it always results in the same result. Compare 2 things by direct observation.	Year 1: Observe closely, using simple equipment. Perform simple tests. Identifying and classifying I can make relevant observations related to the task or test I can use simple equipment provided. I can measure using uniform non-standard units (eg straws) or simple standard units and measuring equipment I can observe and copy a teacher led test. I can carry out a test from 2 given choices of variables.	Year 2: Observe closely, using simple equipment. Perform simple tests. Identifying and classifying I can use simple equipment provided. I can make observations related to the task or test using appropriate equipment. I can measure using simple standard units eg.ml,g etc I can select equipment and variables to carry out a simple test with support. I can sort things and reocrd their groupings in venn and carroll diagrams.
Record	Drawing of pictures, recording of comments using video, audio recorders etc	Gather and record data to help in answering questions. I can draw pictures of results/take photos. I can help my teacher make a class table or chart. I can make practical block graphs /pictograms/ Venn diagrams. I can put data into a table template with support.	Gather and record data to help in answering questions. I can draw pictures of results/take photos. I can help the teacher make class table or chart. I can increasingly complete a simple chart or 2 column table. I can with support make a venn or carroll diagram. I can make/draw block graph with 1:1 scale.

Review	EYFS: Make comparisons. Say what happened. Order results (first, second, third) Spot similarities and differences	Year 1: Use their observations and ideas to suggest answers to questions. I can spot and describe similarities and differences I can use observations to describe what has changed. I can say whether what happened is what I expected.	Year 2: Use their observations and ideas to suggest answers to questions. I can describe observations. I can respond to prompts to describe what has happened in more detail. I can say whether what happened is what I expected. I can use my observations and ideas to suggest answers to questions.

KS2	Year 3	Year 4	Year 5	Year 6
	The statements in red are the Working Scientifically objectives as stated in the National Curriculum. The black statements break down each objective in to smaller steps and show progression between year groups.			
Plan	Ask relevant questions and use different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests. I can begin to choose ways to try and answer a question, using given suggestions. I can say what equipment is needed from a selection. I can recognise when a scientific enquiry is unfair and begin to explain why. I can suggest the type of data needed to be collected with support. I can make simple predictions based on everyday experience and knowledge.	Ask relevant questions and use different types of scientific enquiries to answer them. Set up simple practical enquiries, comparative and fair tests. I can choose ways to independently try and answer a question using my knowledge and understanding of science and I can ask questions based on observations. I can competently say what equipment is needed from a selection. I can set up a fair test and explain why it is fair. I can competently suggest the type of data needed to be collected with support. I can make simple predictions and give an explanation based on my everyday experiences and knowledge.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. I can ask scientific questions after an observation I have made. I can begin to choose the most appropriate scientific enquiry method to answer a question and begin to outline the method I can confidently decide what data to collect and explain why I can make predictions based on scientific knowledge independently	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. I can confidently ask a variety of relevant type scientific questions. I can begin to choose the most appropriate scientific enquiry method to answer a question and outline the method in detail. I can confidently and independently list all the equipment needed. I can confidently decide what data to collect and how much is needed to get reliable results. I can make predictions based on scientific knowledge and explain why.

Do	Year 3: Make systematic and careful observations and where appropriate take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. I can carry out a fair test or pattern seeking enquiry with help I can continue to make my own decisions about the most appropriate type of scientific enquiry to use to answer questions and carry it out eg. Recognise when a fair test is necessary. I can continue to make decisions about what observations to make and how long to make them for and carry it out I can use simple standard measures: m, cm, mm, Kg, g, cm3, minutes, seconds, newton (measure to nearest whole). I can confidently read to the nearest whole or half unit. I can systematic, careful measurements using a datalogger. I can begin to read scales on measuring equipment to the nearest division labelled and unlabelled.	Year 4: Make systematic and careful observations and where appropriate take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. I can carry out a fair test or pattern seeking enquiry confidently. I can make my own decisions about the most appropriate type of scientific enquiry to use to answer questions and carry it out eg. Recognise when a fair test is necessary I can confidently make decisions about what observations to make and how long to make them for and carry it out. I can confidently read to the nearest whole or half unit or mixed units. I can systematic, careful measurements using a data logger. I can confidently read scales on measuring equipment to the nearest division labelled and unlabelled. I can use simple standard measures with increasing accuracy: m, cm, mm, Kg, g, cm3, minutes, seconds, newton (measure to nearest whole). I can make decisions about which standard measures should be used.	Year 5: Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, take repeat readings when appropriate. I can make a series of measurements adequate for the task. I can begin to independently select appropriate measuring equipment. I can use standard measures, including use of fractions and mixed units. I can read scales with increasing accuracy. I can compare 4 or more things. I can select apparatus and use it with care and safely. I can repeat readings and find averages.	Year 6: Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, take repeat readings when appropriate. I can make a series of measurements adequate for the task independently and confidently. I can begin to independently select appropriate measuring equipment and confidently explain why. I can use standard measures, including use of fractions and mixed units and decimals to one place. I can read scales with precision. I can compare 5 or more things. I can select apparatus and use it with care and safely. I can repeat readings and find averages and explain importance.

Record	Year 3:	Year 4:	Year 5:	Year 6:
	Gather and record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. I can discuss and select the most appropriate table for the task to record my findings. I can draw a simple bar chart 1:1 1:2 scale independently. I can continue to use simple scientific language, when recording, with increasing accuracy. I can continue to use simple scientific drawings, keys and labelled diagrams when recording with increasing complexity.	Gather and record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables. I can use Carroll and Venn diagrams to help sort things and record the groupings, sometimes re-sorting using different criteria. I can confidently use and make simple branching data bases/ classification keys for a few (3-6) things with easily observable differences. I can discuss and select the most appropriate table for the task to record my findings. I can draw a simple bar chart 1:1 1:2 1:5 1:10 scale independently. I can confidently use simple scientific language, when recording, with increasing accuracy. I can confidently use simple scientific drawings, keys and labelled diagrams when recording with increasing complexity.	Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, scatter graphs, bar and line graphs. I can present information in a variety of tables and record repeated readings. I can communicate data using a scatter graph, with support. I can plot a line graph with increasing accuracy. I can use increasingly more complicated classification keys. I can draw simple bar charts using a given scale. I am beginning to record observations and measurements systematically independently.	Record data and results of increasing complexity using scientific diagrams, labels, classification keys, tables, scatter graphs, bar and line graphs. I can present information clearly in tables including for repeat readings. I can communicate data using a scatter graph I can plot a line graph with increasing accurac using fractions or decimals. I can use a variety of simple and more comple classification keys. I can draw simple bar charts with more complex scales. I can record observations and measurements systematically independently.

Review	Year 3:	Year 4:	Year 5:	Year 6:
	Report on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions, making predictions fo values. Use results to draw simple conclusions and suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Use straightforward scientific evidence to answer questions or support their findings. I can report my findings in an appropriate way and explain what I have found out with a simple guided conclusion and based on every day experience. I can with, limited support, use results to draw conclusions and begin to make simple predictions. I can identify most clear differences, similarities or changes related to simple scientific ideas and processes. I can use straightforward scientific evidence to questions or to support findings with guidance	Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions, making predictions for values. Use results to draw simple conclusions and suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Use straightforward scientific evidence to answer questions or support their findings. I can report my findings in an appropriate way and explain what I have found out with a simple conclusion, suggesting improvements and raise further questions I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. I can identify subtle differences, similarities or changes related to simple scientific ideas and processes. I can confidently use straightforward scientific evidence to answer questions or to support findings with guidance.	Report and present findings from enquiries, including conclusions, causal relationships and explanations of results, explanations of the degree of trust in results, in oral and written forms such as displays and other presentations. Use results to make predictions to set up further comparative and fair tests. Identify scientific evidence that has been used to support or refute ideas or arguments. I am gaining in confidence when using graphs to spot and interpret patterns/ trends in results. I can draw conclusions using patterns and begin to relate conclusions including, causal relationships and explanations, to scientific knowledge and understanding consistent with the evidence, with support. I can offer simple explanations for differences in repeated measurements/ observations with support.	Report and present findings from enquiries, including conclusions, causal relationships and explanations of results, explanations of the degree of trust in results, in oral and written forms such as display other presentations. Use results to make predictions t further comparative and fair tests Identify scientific evidence that has been used to support or refute ideas or arguments. I can use graphs to spot and interpret pattern results. I can draw conclusions using patterns and begin to relate conclusions including, causal relationships and explanations, to scientific knowledge and understanding consistent wit the evidence. I can offer simple explanations for differences in repeated measurements/ observations. I can use test results to make predictions to set up further comparative and fair tests.
