Science

Through the study of science, St. Mary's children will develop their experimental thinking and curiosity to investigate the world around them. They will become reflective thinkers who see links and patterns in a meaningful way.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	**EYFS 2020 – Understanding The World – Children at EXP by end of EYFS will:** • Explore the natural world around them making observations and drawings of plants and animals – {links to NC Key Skills 1, 2, 4, 5, 6 & 7} • ii) Know some similarities and differences between the natural world around them and contrasting environments, drawing on own experience and what has been read in class – {links to NC Key Skills 1, 4} • iii) Understand some important processes and changes in the natural world around them including seasons and changing states of matter –{Link to NC Key Skills 1,2, 4,5,7}					
Year 1	**Animals including Humans (humans focus) 2,4,5,6**	**Animals including humans (animal focus) 2,4,5,6** *Link to history - senses*	**Everyday Materials 2,3,4,5,6** *Link to geography – local area/homes*	**Everyday Materials 2,3,4,5,6**	**Plants 2,3,4**	**Seasonal changes – weather 2,4,5,6**
	Seasonal Changes – throughout the year					
Year 2	**Living things and their habitats 2,4,5,6** *Link to DT – make a home*	**Living things and their habitats 2,4,5,6**	**Animals including humans 2,4,5,6** *Link to DT – making guacamole*	**Plants 2,3,4,6**	**Every day materials and their properties 2,3,4,5,6** *Link to history and DT – Great Fire of London*	**Every day materials and their properties 2,3,4,5,6**
Year 3	**Rocks and soils 4,5,6** *Link to prehistoric Britain*	**Forces and magnets 2,4,5,6**	**Animals including humans 2,4,5,6** *Link to DT – food project linked to Europe in history*	**Animals including humans 2,4,5,6**	**Light 2,3,5,6** *Link to DT – eg shadow puppets*	**Plants 2,3,4,6** *Link to geography and art - Rainforests*
Year 4	**States of Matter 2,3,4,5,6**	**States of matter 2,3,4,5,6** *Link to geography – Water Cycle*	**Sound 2,3,5,6** *Link to Viking instruments?*	**Electricity 2,3,5,6** *Link to DT - Torches*	**Animals including humans 2,4,5,6** *Link to history – Tudor meal?*	**Living things and their habitats 2,4,5,6** *Link to geography – Scandinavia*
Year 5	**Properties and changes of materials 2,3,4,5,6** *Link to history – Victorian Britain*	**Properties and changes of materials 2,3,4,5,6** *Link to history – Victorian Britain*	**Earth and Space 2,4,5,6**	**Earth and Space 2,4,5,6**	**Forces 2,3,5,6** *Link to DT in Summer 2*	**Living things and their habitats/Animals including humans 2,3,4,5,6**
Year 6	**Living things and their habitats 2,3,4,5,6** *Link to DT*	**Evolution and inheritance 3,4,5,6**	**Light 2,3,5,6** *Link to art – digital art*	**Electricity 2,3,5,6** *DT link*	**Animals including humans 2,3,4,5,6**	**Animals including humans 2,3,4,5,6**

National Curriculum Key Skills			
Skill Key	**KS1**	**Lower KS2 + (KS1)**	**Upper KS2 + (KS1 and Lowers KS2)**
1 – Ask questions – in all programmes of study	Ask simple questions and recognise these questions can be answered in different ways.	Ask relevant questions and different types of scientific enquiry to answer them. Use scientific evidence to answer questions or support findings.	Planning different types of scientific enquiries to answer questions including recognising controlling variables where necessary. Identify scientific evidence that has been used to support or refute ideas.
2 – Observations	Observing closely, using simple equipment.	Make systematic and careful observations where appropriate, taking accurate measurements using standard units and a range of equipment including thermometers and data loggers.	Take measurements using a range of scientific equipment with increasing accuracy and precision, take repeated readings here necessary.
3 - Test	Preform simple tests	Setting up simple practical enquiries, comparative and fair tests	→
4 – Identifying and Classifying	Identifying and classifying	Identifying differences, similarities or changes related to simple scientific ideas and processes.	→
5 – Using Observations	Using observations and ideas to suggest answers to questions	Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	Using test results to make predictions to set up further comparative and fair tests.
6 - Recording	Gathering and recording data to help in answering questions.	Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Reporting on findings from enquiries including oral and written explanations, displays or presentations of results and conclusions.	Recording data results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs. Reporting and representing findings from enquiries, including conclusions, casual relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
7 – Vocabulary – in all programmes of study	Pupils should read and spell scientific vocabulary at a level consistent with their increasing word and spelling knowledge at KS1.	Pupils should read and spell scientific vocabulary correctly and with confidence, using their growing reading and spelling knowledge.	Pupils should read, spell and pronounce scientific vocabulary correctly.