SCIENCE		RECEPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	Upper KS2 (Y5 and Y6)	
QUESTION		**Ask simple questions** about immediate environment.	**Ask questions** and know some can be answered using scientific enquiry.		**Identify scientific questions.** ie can be investigated through scientific enquiry.		**Raise scientific questions** and **hypothesise**	
SCIENTIFIC ENQUIRY	**OBSERVE**	**Qualitative** Talk about similarities and differences.	**Qualitative and Simple Quantitative**		**Qualitative and Quantitative**		**Qualitative and Quantitative**	
			Observe change over time. Use Senses/ equipment.	Measure change over time e.g. plant growth. Select equipment	Systematic/ careful observations. Use bar charts, pictograms, tables.	Accurate measurements. Use time graphs and other graphs.	Accurate/ precise measurements, Diagrams, tables, bar and line graphs.	Take repeat readings when appropriate. Scatter graphs.
	CLASSIFY and FIND PATTERNS	**Talk and Sort**	**Identify and Classify**		**Classify and Find Patterns**		**Classify and Find Patterns**	
		Use simple scientific criteria.	e.g. familiar plants, animals, materials Compare and contrast	e.g. living/ dead/ never alive; materials Compare differences	Classify animals/ materials. Link two variables e.g. *the closer the magnet the bigger the force.*	Use simple classification keys. Link two variables e.g. *the more cells in a circuit, the brighter the bulb.*	Use complex classification keys. Identify causal relationships.	Develop classification keys. Identify evidence that supports/ refutes causal relationship.
	CONTROL INVESTIGATIONS: comparative and fair testing	**Explore** objects/ materials/ living things/ resources designed to model scientific processes.	**Simple comparative tests**		**Comparative and fair tests**		**Design own comparative and fair tests**	
			e.g. *What is the best material for an umbrella?*	e.g. *What if plants do not get light and water?*	**Predict.** Fair tests e.g. *How does distance affect magnet strength?*	**Predict.** Language of independent and control variable.	Identify when and how to use tests. Recognise and control variables. Make predictions based on previous test results.	
	RESEARCH	**Listen and respond to stories** about scientific processes/ events/ objects.	**Find information** using given sources. e.g. *animals.*	**Select information** from a range of given sources**.**	**Research** using given sources. e.g. *research different food groups and how they keep us healthy*	**Select information** to support findings. e.g. *research animals*	**Explore relevant information by using a wide range of secondary sources.**	
							Explore how scientific ideas have developed over time.	Identify evidence that has been used to support or refute ideas.
	MODEL	**Concrete** context. Create drawings and models of their environment	**Concrete** context Draw diagrams e.g. *parts of plants/ the body.*	**Explore** and **create** drawings and physical models e.g. *habitats.*	**Abstract** contexts e.g. processes and phenomena such as forces/ light. **Use** labelled diagrams and drawings and physical models.	**Abstract** contexts e.g. processes and phenomena such as sound/ electricity. **Create** labelled diagrams and drawings and physical models.	**Abstract** contexts. **Evaluate** diagrams/ models e.g. states of matter; solar system.	**Abstract** contexts. **Create** own versions of models. e.g. circulatory system; light.

CONCLUDE	**Explain** simple phenomena: How? Why?	**Describe** what has happened or been observed.	**Explain** why a simple observation occurred. **Evaluate** the effectiveness of observations.	**Explain an observation or an event in scientific terms.** Distinguish between what has been observed and why it happened. Begin to link evidence from secondary sources as well as primary. Suggest improvements.	**Evaluate original hypothesis against observed evidence and reach appropriate conclusions.** Identify causal relationships. Begin to identify how reliable the data is.