	Early learning Goal					
EYFS	Explore the natural world around them, making observations and drawing pictures of animals and plants.		Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.		Understand some important processes and changes in the natural world, including the seasons and changing states of matter.	
	Questioning	**Observing**	**Testing**	**Classifying**	**Answering Questions**	**Gathering Data and Recording**
Year 1	Asks simple "What…" "How…" and "Who…" questions about the world around them.	Recognises that they can find answers by looking closely or asking an adult. Uses the five senses to explore the immediate environment. Uses simple equipment like magnifying glasses or hand lenses with help.	Explores objects and materials through teacher-led activities (e.g., "Does it float?"). Follows a simple, single-step instruction to carry out a test.	Sorts objects into groups based on a single, obvious feature (e.g., colour or size). Identifies and names common animals, plants, or materials.	Describes what they found out verbally ("The ice melted"). Points to a picture or object to show the result of a test.	Records findings by drawing pictures or using simple teacher-provided templates. Communicates findings through talk and basic labelling.
Year 2	Asks more specific "What happens if...?" or "Why does...?" questions. Understands that some questions are answered through testing, while others require secondary sources (books/videos).	Makes observations over a longer period (e.g., watching a plant grow over weeks). Uses tools more accurately, such as rulers, thermometers, or kitchen scales.	Helps to decide how to set up a simple test with support. Begins to understand the idea of a comparative test (e.g., testing two different fabrics to see which is more waterproof).	Sorts objects based on scientific properties (e.g., "rough vs. smooth" or "living vs. never lived"). Uses simple keys or Venn diagrams to group items more systematically.	Uses their observations to suggest a reason ("The ice melted because the room was warm"). Compares their result to what they thought might happen (a simple prediction check).	Records data in simple tables or formatted lists. Begins to help create simple block graphs or pictograms to show results.
Year 3	Asks questions based on curiosity or initial observations. Recognises the five types of inquiry (e.g., "Is this a fair test or a classification task?") with teacher support.	Makes careful observations, noticing changes over time. Uses standard units (cm, grams, ml) and tools like rulers or thermometers.	Sets up simple practical inquiries with a clear "before and after" state. Suggests what they might need to do to make a test fair.	Groups objects and materials based on scientific properties (e.g., grouping rocks by hardness or permeability; grouping magnets by strength). Uses Venn and Carroll diagrams to show overlapping features or "Yes/No" logic across two categories. Talks about the reasons for grouping things in a certain way.	Reports on findings using basic scientific vocabulary (e.g., "The liquid turned into a solid"). Identifies simple differences or similarities between two results. Suggests a single way to improve an experiment.	Gathers and records data in pre-prepared tables or simple lists. Uses simple drawings and labels to show what happened.
Year 4	Asks relevant questions that can be investigated scientifically. Independently selects the most appropriate type of inquiry to answer a specific question.	Makes systematic observations, taking readings at regular intervals. Uses a wider range of equipment, including data loggers to capture digital evidence.	Sets up comparative and fair tests, identifying what stays the same and what changes. Explains why certain variables must be controlled to ensure a fair test.	Groups a wide range of living things (plants and animals) and materials (solids, liquids, gases) based on complex characteristics. Uses and creates branching classification keys (dichotomous keys) to identify specimens through a series of specific questions. Uses straightforward evidence to justify a classification.	Uses straightforward scientific evidence to answer questions or support a claim. Draws simple conclusions and uses results to make predictions for new values or scenarios. Suggests multiple improvements and raises further questions for future investigation.	Decides on the best way to present data (e.g., choosing between a table or a bar chart). Uses classification keys and accurately constructed bar charts with scaled axes.
Year 5	Identifies scientific evidence that has been used to support or refute ideas. Uses test results to make predictions that lead to further comparative and fair tests.	Takes measurements, using a range of scientific equipment, with increasing accuracy and precision. Begins to use digital tools (like data loggers) more independently.	Plans different types of scientific inquiries, identifying the Independent (what I change) and Dependent (what I measure) variables.	Groups and classifies materials based on properties like solubility, transparency, and conductivity. Creates more complex keys with multiple branching points.	Identifies causal relationships in their data (e.g., "Increasing the voltage caused the bulb to get brighter"). Uses scientific evidence to support their findings.	Records data using more complex tables and scientific diagrams. Decides when a line graph is appropriate for showing continuous changes over time.
Year 6	Independently asks a range of questions (e.g., "Is there a causal relationship?"). Selects the most appropriate type of inquiry and justifies the choice based on the problem.	Takes repeat readings and understands the need for an average to ensure data is reliable. Identifies anomalies (results that don't fit the pattern) and suggests why they occurred.	Recognises and controls all relevant variables. Explains why certain factors must be held constant to ensure the results are a "valid" proof of the hypothesis.	Describes how living things are classified into broad groups (microorganisms, plants, animals) based on specific characteristics. Uses the Linnaean system to justify classification.	Uses scientific evidence to answer questions or to support/refute a claim. Draws conclusions that relate to broader scientific theories (e.g., using gravity to explain falling objects).	Records data using more complex tables and scientific diagrams. Decides when a line graph is appropriate for showing continuous changes over time.