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| **Science Skills Progression 2024** |
| **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/modelse.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 between concepts and data. Begin to identify how reliable the data is.  |