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| **SCIENCE** **Skills Progression** | **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 aboutsimilarities and differences. | **Qualitative and Simple Quantitative** | **Qualitative and Quantitative** | **Qualitative and Quantitative** |
| Observe changeover 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,materialsCompare and contrast | e.g. living/ dead/ never alive;materialsComparedifferences | Classify animals/ materials. Link two variables e.g. *the closer the magnet the bigger the force.* | Use simple classification keys.Link two variablese.g. *the more cells in a circuit, the brighter the bulb.* | Use complexclassification keys.Identify causal relationships. | Developclassification 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 howscientific ideas have developed over time. | Identify evidence that has been used to support or refute ideas. |
| **MODEL** | **Concrete** context.Create drawings and models of theirenvironment | **Concrete**contextDraw diagrams e.g. *parts of plants/ the body.* | **Explore** and **create**Drawings and physical models e.g. *habitats.* | **Abstract** contextse.g. processes and phenomena such as forces/ light. **Use** labelled diagrams and drawings and physical models. | **Abstract** contextse.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. Begin to identify how reliable the data is. |

