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| **Year 5 Science Disciplinary Knowledge – Investigation** |
| **Investigation & Hypothesising Observing and recording Concluding and Evaluating** | Sci 1WTS | Sci 2WTS | Sci 3WTS | Sci 1EXS | Sci 2EXS | Sci 3EXS | Sci 1GDS | Sci 2GDS | Sci 3GDS |
| I can plan an investigation that demonstrates how I have considered how the variables need to be controlled for the test to be fair |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
| I can say 4 reasons why my test is fair |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
| I can carry out repeated tasks to justify reliability of data  |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
| I can use data that I have analysed to find trends and outliers |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
| I can make ongoing observations and records that ensure that controlled variables are not changing |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
|  I can explain how I have used prior knowledge to help me form my hypothesis.  |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
| I can demonstrate how the constant evaluation of my investigation has helped ensure fair and accurate results |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
| Where there are anomalies I can evaluate the test and results and say why these might be |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
|  I can compare my results against other similar results in order to help evaluate accuracy. |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |
|  |  |  |  | Rest of class | Rest of class | Rest of class |  |  |  |



**Science Assessment and Tracking**

**Year 5 Overview 24/25**

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| **Science 2 – Living Things** |
|  **Objective** | **WTS** | **EXS** | **GD** |
|  I know the difference in the lifecycle of a mammal, amphibian, insect and birds. |   | Rest of class |   |
| I know the life process of reproduction of some animals and plants. - sexual reproduction in flowering plants - asexual reproduction in plants - sexual reproduction in animals - different animals have different gestation periods - human timeline of growth and change from foetus to adulthood and old age. |  | Rest of class |  |
| I know how to classify living things, including micro-organisms, animals and plants depending on characteristics, similarities and differences. - classification tree sorting and classifying. Understanding microorganisms – mushroom are microorganisms and other types. |  | Rest of class |  |
|  I know different ways of classifying based on specific characteristics. -link to Forest School and find out about a naturalist or animal behaviourist. |  | Rest of class |  |

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| **Science 1 - States of Matter** |
|  **Objective** | **WTS** | **EXS** | **GD** |
|  I know how to compare and group materials on the basis of properties including hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets.  |   | Rest of class |   |
| I know that some materials will dissolve to form a solution and how to recover these - crystal experiment |  | Rest of class |  |
| I know how to separate mixtures through filtering, sieving and evaporating |  | Rest of class |  |
| I know how everyday materials are better suited for everyday use including metals, woods and plastics |  | Rest of class |  |
| I know and can demonstrate reversible change |  | Rest of class |  |
| I know that some changes result in the formation of new materials and these are not usually reversible. for example, burning, rusting (oxidisation) and other reactions eg vinegar and bicarb of soda They should find out about how chemists create new materials, for example, Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinklefree cotton.  |  | Rest of class |  |

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| **Science 3– Earth, Space and Forces** |
|  | **WTS** | **EXS** | **GDS** |
| I know what is gravity and the impact it has on falling objects. - Isaac Newton’s (third law of gravity) - unsupported objects fall towards Earth - rocket experiment and upthrust.  |  | Rest of class |  |
| I know the effects of air resistance, water resistance and friction. - balanced and unbalanced forces - parachute experiment - dropping different sized objects from a height in the air - dropping different sized objects from the surface into a deep container of water |   | Rest of class |   |
| I know that some mechanisms including levers, pulleys and gears allow a small force to have a greater effect. -investigate how levers work and how the position of the fulcrum impacts on its effectiveness. -investigate how pulleys work and how the number of pulleys used changes the effort required. |  | Rest of class |  |
|  I know how forces effect the movement of the earth and smaller planets relative to the sun in the solar system. - name the planets in the solar system and identify them in order of orbit around the sun.  |  | Rest of class |  |
| I know how to describe the shape and movement of the sun, earth and moon. |  | Rest of class |  |
| I know how to explain day and night and the apparent movement of the sun across the sky. - Look at sundials and record the movement of the sun throughout the day. -Tilt of Earth on its axis - link to summer and winter in northern hemisphere and southern hemisphere. -summer solstice / winter solstice |  | Rest of class |  |

**Next Steps -Learning Points for next enquiry (noting revisit points for Pupils at WTS )**

**1)**

**2)**

**3)**

**4)**