



## TSS Primary Science MTP 2023-24 Year 6 Block 1 – Working Scientifically

| Key Targets and Learning Objectives  |  | Key Activities  | Equipment   |
|--|--|---|---|
| <ul style="list-style-type: none"> <li>• Describe how a model can help us understand and describe scientific phenomena and ideas</li> <li>• Use models, including diagrams, to represent and describe scientific phenomena and ideas</li> <li>• Know the features of the five main types of scientific enquiry</li> <li>• Make predictions, referring to relevant scientific knowledge and understanding with familiar and unfamiliar contexts</li> <li>• Plan fair test investigations, identifying the independent, dependent and control variables</li> <li>• Describe risks when planning practical work and consider how to minimise them</li> <li>• Sort, group and classify objects, materials and living things through testing, observation and using secondary information</li> <li>• Take appropriately accurate measurements</li> <li>• Collect and record observations and/or measurements in tables and diagrams appropriate to the type of scientific enquiry</li> <li>• Carry out practical work safely</li> </ul> |  | <ul style="list-style-type: none"> <li>• Children will have equipment that can make a car that must be powered by a balloon. Discuss the forces that move the car (thrust) and slow the car down (friction) and how this links to Formula Ethara. <i>Physics &amp; Formula Ethara</i> link</li> <li>• Make a model of the lung: <a href="https://www.youtube.com/watch?v=fybV8zIGyu8">https://www.youtube.com/watch?v=fybV8zIGyu8</a> Children to know the purpose of the lung and know it is part of our circulatory system. <i>Biology</i> link.</li> <li>• Investigate friction by pulling shoes over different surfaces and record the amount of force using forcemeters. Children should select the best forcemeter to use, plus ensure they test a few times to improve accuracy. <i>Physics</i> link</li> <li>• Fizzy drink (Coke, diet Coke, Mountain Dew, Sparking Water) and mentos investigation. Children make their predictions and then use the iPads to observe the eruptions in slow motion. <i>Chemistry</i> link</li> <li>• Measuring challenge: chn will have to measure using different equipment (forcemeters, rulers, tape measure, scales, measuring jugs). They must select the most appropriate equipment and explain how they have ensured accuracy.</li> <li>• Sorting animals into categories (types of vertebrate), then into predators, prey, both etc – <i>Biology</i> link</li> </ul> <p><b>STEAM activity</b> – Chn must build a tall tower using toothpicks and bluetac. The tallest tower wins. Allow time to plan, build and reflect. Children create a success criteria for future projects.</p> | <ul style="list-style-type: none"> <li>• Balloons</li> <li>• Modelling clay</li> <li>• Card</li> <li>• Wooden wheels</li> <li>• Sticks</li> <li>• Bottles</li> <li>• Force meters</li> <li>• Measuring jugs</li> <li>• Tape measures</li> <li>• Rulers</li> <li>• Thermometers</li> <li>• Scales</li> <li>• Stopwatches</li> <li>• Tape</li> <li>• Fizzy drink</li> <li>• Mentos</li> <li>• Surface mats</li> </ul> |
| Key vocabulary   | Going Green Link   | Integration of technology   |   |
| Model, fair test, investigation, prediction, measurements, observation, conclusion, scientific enquiry, Biology, Chemistry, Physics, friction, force   | <ul style="list-style-type: none"> <li>• Look at current stories from around the world regarding green issues in the weekly 'What in the World?!' discussion.</li> </ul> | Use of iPads <ul style="list-style-type: none"> <li>• Make observations using video and pictures (fizzy drinks)</li> <li>• Research during sorting and grouping animals, children look up diets of different animals to assist their grouping</li> </ul>  |   |