



## TSS Primary Science MTP 2022-2023 Year 5 Block 1 – Working scientifically

Key Targets and Learning Objectives	Key Activities	Equipment
<ul style="list-style-type: none"><li>• Know that a model presents an object, process or idea in a way that shows some of the important features</li><li>• Use models, including diagrams, to represent and describe scientific phenomena and ideas</li><li>• Ask scientific questions and select appropriate scientific enquiries to use</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>• Complete a key based on easily observed differences</li><li>• Choose equipment from a provided selection and use it appropriately</li><li>• Decide when observations and measurements need to be repeated to give more reliable data</li><li>• Take appropriately accurate measurements</li><li>• Carry out practical work safely</li><li>• Use a range of secondary information sources to research and select relevant evidence to answer questions</li><li>• Collect and record observations and/or measurements in tables and diagrams appropriate to</li></ul>	<ul style="list-style-type: none"><li>• Enact the digestive system – pushing foods through the intestines (tights) – <i>Biology link</i></li><li>• Sorting activity – predator and prey and looking at how they have adapted to hunt / defend themselves. Start to introduce identification keys. <i>Biology link</i></li><li>• (2 lessons) Using scientific enquiry – mini measurements carousel activity.</li></ul> <p>Stations:</p> <ol style="list-style-type: none"><li>1) Force meters to test friction force of different materials</li><li>2) Measure distance of blow dart</li><li>3) Measure volume of containers</li><li>4) Measure weight of diff objects</li><li>5) Measure temperature of different objects</li></ol> <ul style="list-style-type: none"><li>• Solid, liquid gas investigation – melting different liquids</li><li>• Paper airplane investigation – measurements and recording data – <i>Physics link</i></li></ul> <p>STEM activity – Egg drop! Build a structure to hold an egg and keep it protected when dropped from a height. <a href="https://buggyandbuddy.com/stem-kids-egg-drop-project/">https://buggyandbuddy.com/stem-kids-egg-drop-project/</a></p>	<ul style="list-style-type: none"><li>• Various foods and mixing bowls</li><li>• Tights</li><li>• Force meters</li><li>• Measuring jugs</li><li>• Tape measures</li><li>• Rulers</li><li>• Thermometers</li><li>• Scales</li><li>• Car ramp</li><li>• Wooden cars</li><li>• Paper</li></ul>



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<p>the type of scientific enquiry</p> <ul style="list-style-type: none"><li>• Describe the accuracy of predictions, based on results</li><li>• Describe patterns in results, including identifying and anomalous results</li><li>• Make a conclusion from results informed by scientific understanding</li><li>• Suggest how an investigation could be improved and explain any proposed changes</li><li>• Present and interpret results using tables, bar charts, dot plots and line graphs</li></ul>		
Key vocabulary	Going Green Link	Integration of technology
Model, fair test, investigation, prediction, measurements, observation, conclusion, scientific enquiry, Biology, Chemistry, solid, liquid, gas, Physics, friction, force	<ul style="list-style-type: none"><li>• Look at how scientists are tackling climate change – research focus<ul style="list-style-type: none"><li>- Who are the key activists / scientists?</li><li>- Why is more not being done?</li></ul></li></ul> <p><i>Science in context</i> link</p>	Use of iPads <ul style="list-style-type: none"><li>• Create graphs using apps</li><li>• Make observations using video and pictures</li><li>• Use augmented reality to explore scientific ideas</li></ul>