



TSS Primary Science MTP 2022-2023 Year 2 Block 1 – Working scientifically

Key Targets and Learning Objectives		Key Activities	Equipment
<ul style="list-style-type: none"> • Know that a model represents an object or idea in a clear way • Make and use a physical model of a familiar system or idea • Ask questions about the world around us and talk about how to find answers • Make predictions about what they think will happen • Sort and group objects, materials and living things based on observations of the similarities and differences between them • Use given equipment appropriately • Take measurements in non-standard units • Follow instructions safely when doing practical work • Collect and record observations and/or measurements by annotating images and completing simple tables • Describe what happened during an enquiry and if it matched predictions • Identify simple patterns in results, e.g. increasing or decreasing patterns • Present and interpret results using tables and block graphs 		<ul style="list-style-type: none"> • Ice balloons Y2 Ice balloons.pdf (use balloons instead of containers). Wrap in newspaper – predict what it is at beginning. Use magnify glasses and torches to help with observations. <i>Chemistry</i> link. Describe what they see, hear, feel etc. What questions do they have? • Look at objects that float and sink – sort them into groups. What are they made of? Do any other factors contribute to why they float? <i>Physics</i> link. Why is knowing the best materials that float important? • Make lava lamps - Y2 - lava lamp.pdf <i>Chemistry</i> link. • Make a volcano - Y2 - volcanoes.pdf <i>Chemistry</i> link. How is this model different to a real volcano? • Make a backbone - Y2 Bendy-backbone.pdf <i>Biology</i> link (Good place to introduce vertebrates – which other animals have backbones? Which do not?) • Stop the ice from melting - https://frugalfun4boys.com/ice-melting-science-experiment/ Ideally use special ice molds (e.g. penguins, star etc). Could be a <i>Biology</i> link to see which materials insulate the best (How do bears keep warm in the winter?), or <i>Chemistry</i> link, how heat is transferred through different materials <p>STEM activity – Build a tower with cards https://www.feelgoodteaching.com/2017/05/stem-challenge-card-towers.html</p>	<ul style="list-style-type: none"> • Balloons • Food colouring • Salt • Various objects to test buoyancy • Jar • Cooking oil • Effervescent Tablets • Torches • Magnify glasses • Playdough • Vinegar • Bicarbonate soda • Ice molds • Paper clip – or wire • Straws • Blue tac • Card • Tape
Key vocabulary	Going Green Link	Integration of technology	
Question, Predict, Observe, Equipment, Measure, Describe, Experiment, Investigate, Safety, Research, Liquid, Vertebrate	Think about: What happens to polar bears when the ice melts? What might happen to us when enough of it melts?	Use of iPads <ul style="list-style-type: none"> - Pictures for observations - Research animals that are vertebrates 	