



TSS Primary Science MTP 2022-2023 Year 6 Block 1 – Working scientifically

Key Targets and Learning Objectives	Key Activities	Equipment
<ul style="list-style-type: none">• Describe how a model can help us understand and describe scientific phenomena and ideas• Use models, including diagrams, to represent and describe scientific phenomena and ideas• Ask scientific questions and select appropriate scientific enquiries to use• Know the features of the five main types of scientific enquiry• Make predictions, referring to relevant scientific knowledge and understanding with familiar and unfamiliar contexts• Plan fair test investigations, identifying the independent, dependent and control variables• Describe risks when planning practical work and consider how to minimise them• Sort, group and classify objects, materials and living things through testing, observation and using secondary information• Complete a key based on easily observed differences• Choose equipment from a provided selection and use it appropriately• Decide when observations and measurements need to be repeated to give more reliable data• Take appropriately accurate measurements• Carry out practical work safely• Use a range of secondary information sources to research and select relevant evidence to answer questions• Collect and record observations and/or measurements in tables and diagrams appropriate to the type of scientific enquiry	<ul style="list-style-type: none">• Make a model of the lung: https://www.youtube.com/watch?v=fybV8zIGyu8 <i>Biology</i> link• Balloon races investigation to test friction. <i>Physics</i> link• (2 lessons) Using scientific enquiry – mini measurements carousel activity. <p>Stations:</p> <ol style="list-style-type: none">1) Force meters to test friction force of different materials2) Measure distance of blow dart3) Measure volume of containers4) Measure weight of diff objects5) Measure temperature of different objects <ul style="list-style-type: none">• Fizzy drink (Coke, diet Coke, Mountain Dew, Sparking Water) and mentos investigation – <i>Chemistry</i> link• Ramp car investigation – aerodynamics. Can you make the car go further making the car more aerodynamic? – <i>Physics</i> link <p>STEM activity – Build a solar oven: https://desertchica.com/diy-solar-oven-smores-kids-science-experiment/</p>	<ul style="list-style-type: none">• Balloons• Modelling clay• Bottles• Force meters• Measuring jugs• Tape measures• Rulers• Thermometers• Scales• Car ramp• Wooden cars• String• Stopwatches• Tape• Fizzy drink• Mentos• Pizza box• Tin foil• Cling film• Glue• Sweets



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<ul style="list-style-type: none"> • Describe the accuracy of predictions, based on results • Describe patterns in results, including identifying and anomalous results • Make a conclusion from results informed by scientific understanding • Suggest how an investigation could be improved and explain any proposed changes • Present and interpret results using tables, bar charts, dot plots and line graphs 		
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"> • Look at how scientists are tackling climate change – research focus <ul style="list-style-type: none"> - Who are the key activists / scientists? - Why is more not being done? <i>Science in context link</i>	Use of iPads <ul style="list-style-type: none"> • Create graphs using apps • Make observations using video and pictures • Use augmented reality to explore scientific ideas