TSS Primary Science MTP 2022-2023
Year 3 Block 1 – Working scientifically

Key Targets and Learning Objectives	Key Activities	Equipment
• Know that there are different types of models in science, including diagrams and physical models that we can touch • Make and use physical models • Draw a diagram to represent a real world situation and/or scientific idea • Ask scientific questions that can be investigated • Know that there are five main types of scientific enquiry (research, fair testing, observing over time, identifying and classifying, and pattern seeking) • Make a prediction describing some possible outcomes of an enquiry • Identify risks and explain how to stay safe during practical work • Use observations to sort, group and classify objects • Choose equipment from a provided selection and use it appropriately • Take measurements in standard units, describing the advantage of standard units over non-standard units • Carry out practical work safely • Use secondary information sources to research and answer to a question • Collect and record observations and/or measurements in tables and in diagrams • Identify whether results support, or do not support, a prediction • Identify simple patterns in results	• Investigate gas production - Y3 gas balloons.pdf (maybe children choose how many spoons of bio carb to put in? Chn with most House Points choose first?). Measure out quantities accurately using scales or measuring cups. *Chemistry* link • Investigate melting of different liquids Y3 - ice investigation.pdf *Chemistry* link (Why do different liquids melt at different speeds?) Record results over time using appropriate equipment. • Liquid races investigation - Y3 - liquids.pdf Predict, record and present results – *Maths* & *Chemistry* link • Hand out a large group of animal pictures for the children to sort and classify into different groups. How would the children group them? Habitat, number of legs, vertebrates & invertebrates etc? Could you extend this to create an identification key? • Measure and record the force needed to move a shoe on different surfaces investigation. Either measure the force of different shoes, or of one shoe on different surfaces – *Physics* link. • Extend the above activity with some persuasive writing. Children can design the ultimate non-slip shoe to be worn around the Sultan's School classrooms and walkways, which are particularly slippery! Can they use their science knowledge and terminology to help them sell the soles? – *English* link STEM activity – build a tower using paper and paper / polystyrene plates https://teachingideas.ca/2018/10/02/stem-activity/ Look at the shapes that are strongest. Maybe award for highest tower, or strongest tower (when adding weight).	• Different liquids (water, juice, milk, paint etc) • Cardboard / large paper or various papers (e.g. sugar) • Vinegar • Bicarbonate soda • Balloons • Bottles • Scales / measuring equipment • Pipettes • Stopwatches • Animal pictures • Force meters

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• Make a conclusion from results and relate it to the scientific question being investigated • Present and interpret results using tables and bar charts		

Key vocabulary	Going Green Link	Integration of technology
Predict, Observe, Equipment, Measure, Describe, Experiment, Investigate, Safety, Research, Liquid, Solid, Liquid, Gas	Look at the melting of polar ice caps and what effect this will have on wildlife in that areas, and potentially for all wildlife worldwide.	Use of iPads - Pictures of observations - Art apps to design shoes