

**The Sultan's School Year 3 Medium Term Curriculum Plan for Science 2019-20**

**Ongoing Working Scientifically Objectives**

- Can ask relevant questions and using different types of scientific enquiries to answer them.
- Can set up simple practical enquiries, comparative and fair tests.
- Can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
- Can gather, record, classify and present data in a variety of ways to help in answering questions.
- Can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Can identify differences, similarities or changes related to simple scientific ideas and processes.
- Can use straightforward scientific evidence to answer questions or to support their findings.

Block	Unit	Key Targets and Learning Objectives	Key Activities	Key vocabulary
1	Material Properties	<ul style="list-style-type: none"> <li>➤ Know that every material has specific properties, e.g. hard, soft, shiny.</li> <li>➤ Sort materials according to their properties.</li> <li>➤ Explore how some materials are magnetic but many are not.</li> <li>➤ Discuss why materials are chosen for specific purposes on the basis of their properties.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Identify different types of materials.</li> <li>➤ Examine, sort and describe objects by their properties.</li> <li>➤ Test natural and man-made materials to see which are stronger.</li> <li>➤ Explain what materials objects are made of and explain why.</li> <li>➤ Carry out a fair test of the elasticity of different objects.</li> <li>➤ Make predictions about whether an object will float or sink.</li> </ul>	Texture Surface Dent Strong Load Stretchiness Rigid Stable Collapse Purpose Construct

			<p><b>Going Green Link:</b> Sort materials according to those that can be recycled and those that can't. Begin to collect paper and plastic in class for recycling.</p>	<p><b>Integration of technology:</b> -Document investigations, using tablets.</p>	<p>Elastic Original Float Sink See-through Cloudy</p>	
2	Plants	<ul style="list-style-type: none"> <li>➤ Know that plants have roots, leaves, stems and flowers.</li> <li>➤ Explain observations that plants need water and light to grow.</li> <li>➤ Know that water is taken in through the roots and transported through the stem.</li> <li>➤ Know that plants need healthy roots, leaves and stems to grow well.</li> <li>➤ Know that plant growth is affected by temperature.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Observe the functions of the parts of a flowering plant.</li> <li>➤ Identify the parts of a plant.</li> <li>➤ Investigate what plants need to grow and where they grow best.</li> <li>➤ Grow seeds.</li> <li>➤ Match plants to their habitats.</li> </ul>	<p><b>Going Green Link:</b> Visit the eco-garden and learn from one of the eco team what projects are happening there. Join in with a project if there is something suitable at that time.</p>	<p><b>Integration of technology:</b> -Recording the growth of their plants through photos and film. Create short movies.</p>	<p>Leaves Stem Roots Flowers Tap root Weed Trunk Fibrous root Tree Minerals Absorb Transport Energy Carbon Dioxide Warmth Temperature Fertiliser Irrigate</p>

3	Rocks	<ul style="list-style-type: none"> <li>➤ Describe rocks and soils.</li> <li>➤ Group rocks according to their properties.</li> <li>➤ Describe and record observations using tables.</li> <li>➤ Make relevant observations and measure quantities.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Design a fair test.</li> <li>➤ Conduct permeability and scratch tests on rocks.</li> <li>➤ Handle rocks in groups and record their observations.</li> <li>➤ Explain and draw diagrams to show how igneous, sedimentary and metamorphic rocks are formed.</li> </ul>	<p>Igneous Sedimentary Metamorphic Permeable Non-permeable Marble Pumice Limestone Chalk Slate Granite</p>		
4	Humans and Animals	<ul style="list-style-type: none"> <li>➤ Know life processes coming to humans and animals.</li> <li>➤ Describe differences between living and non-living things using knowledge of life processes.</li> <li>➤ Explore and research exercise and the adequate, varied diet needed to keep healthy.</li> <li>➤ Know that some foods can be damaging to health, e.g. very sweet and fatty foods.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Identify the differences between a living and a non-living thing.</li> <li>➤ Look for living and non-living things in the school grounds.</li> <li>➤ Describe the impact exercise has on the body.</li> <li>➤ Classify foods to their food groups.</li> <li>➤ Construct food pyramids.</li> </ul>	<p>Life processes Move Nutrition Sensitivity Reproduce Protein Fats Carbohydrates Vitamins Sugars</p>		
			<p><b>Going Green Link:</b> Build a rockery in the Eco garden to encourage insects and plants to grow.</p>	<p><b>Integration of technology:</b> -Using tablets to document the different rocks found around school. -Document investigations, using tablets. -Students record audio files about different types of rocks found, these are then linked to QR codes for a display.</p>		

		<ul style="list-style-type: none"> <li>➤ Explore human senses and the ways we use them to learn about our world.</li> <li>➤ Sort living things into groups, using simple features and describe rationale for groupings.</li> </ul>	<p>wrappings from snacks (eaten at school and at home) for a week. Suggest ways to reduce the waste.</p>	<p>-Research food groups and food pyramids. Use tablets to illustrate findings.</p>	<p>Healthy Diet Fibre Food pyramid Balanced Unhealthy Junk food Exercise Flexible Stamina Brain Interpret</p>	
5	<b>Forces and Motion</b>	<ul style="list-style-type: none"> <li>➤ Know that pushes and pulls are examples of forces and that they can be measured with forcemeters.</li> <li>➤ Explore how forces can make objects start or stop moving.</li> <li>➤ Explore how forces can change the shape of objects.</li> <li>➤ Explore how forces, including friction, can make objects move faster or slower or change direction.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Decide which toys need to be pushed to make them move and which need to be pulled.</li> <li>➤ Identify pushes and pulls in different sports.</li> <li>➤ Identify the different forces needed to make it move.</li> <li>➤ Measure forces using a newton meter.</li> <li>➤ Examine how forces affect the movement of an object.</li> </ul>	<p><b>Going Green Link:</b></p>	<p><b>Integration of technology:</b> -Document investigations, using tablets.</p>	<p>Push Pull Twist Stationary Gravity Newtons Weight Force meter Newton meter Direction Applying Squeeze Dent Bend Friction</p>