

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

			<p>Going Green Link: 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>Integration of technology: -Document investigations, using tablets.</p>	<p>Elastic Original Float Sink See-through Cloudy</p>	
2	Plants	<ul style="list-style-type: none"> ➤ Know that plants have roots, leaves, stems and flowers. ➤ Explain observations that plants need water and light to grow. ➤ Know that water is taken in through the roots and transported through the stem. ➤ Know that plants need healthy roots, leaves and stems to grow well. ➤ Know that plant growth is affected by temperature. 	<ul style="list-style-type: none"> ➤ Observe the functions of the parts of a flowering plant. ➤ Identify the parts of a plant. ➤ Investigate what plants need to grow and where they grow best. ➤ Grow seeds. ➤ Match plants to their habitats. 	<p>Going Green Link: 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>Integration of technology: -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"> ➤ Describe rocks and soils. ➤ Group rocks according to their properties. ➤ Describe and record observations using tables. ➤ Make relevant observations and measure quantities. 	<ul style="list-style-type: none"> ➤ Design a fair test. ➤ Conduct permeability and scratch tests on rocks. ➤ Handle rocks in groups and record their observations. ➤ Explain and draw diagrams to show how igneous, sedimentary and metamorphic rocks are formed. 	<p>Igneous Sedimentary Metamorphic Permeable Non-permeable Marble Pumice Limestone Chalk Slate Granite</p>		
4	Humans and Animals	<ul style="list-style-type: none"> ➤ Know life processes coming to humans and animals. ➤ Describe differences between living and non-living things using knowledge of life processes. ➤ Explore and research exercise and the adequate, varied diet needed to keep healthy. ➤ Know that some foods can be damaging to health, e.g. very sweet and fatty foods. 	<ul style="list-style-type: none"> ➤ Identify the differences between a living and a non-living thing. ➤ Look for living and non-living things in the school grounds. ➤ Describe the impact exercise has on the body. ➤ Classify foods to their food groups. ➤ Construct food pyramids. 	<p>Life processes Move Nutrition Sensitivity Reproduce Protein Fats Carbohydrates Vitamins Sugars</p>		
			<p>Going Green Link: Build a rockery in the Eco garden to encourage insects and plants to grow.</p>	<p>Integration of technology: -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"> ➤ Explore human senses and the ways we use them to learn about our world. ➤ Sort living things into groups, using simple features and describe rationale for groupings. 	<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	Forces and Motion	<ul style="list-style-type: none"> ➤ Know that pushes and pulls are examples of forces and that they can be measured with forcemeters. ➤ Explore how forces can make objects start or stop moving. ➤ Explore how forces can change the shape of objects. ➤ Explore how forces, including friction, can make objects move faster or slower or change direction. 	<ul style="list-style-type: none"> ➤ Decide which toys need to be pushed to make them move and which need to be pulled. ➤ Identify pushes and pulls in different sports. ➤ Identify the different forces needed to make it move. ➤ Measure forces using a newton meter. ➤ Examine how forces affect the movement of an object. 	<p>Going Green Link:</p>	<p>Integration of technology: -Document investigations, using tablets.</p>	<p>Push Pull Twist Stationary Gravity Newtons Weight Force meter Newton meter Direction Applying Squeeze Dent Bend Friction</p>