

The Sultan's School Year 2 Medium Term Curriculum Plan for Science 2019-20

Ongoing Working Scientifically Objectives

- Can ask simple questions and recognising that they can be answered in different ways.
- Can observe closely, using simple equipment.
- Can perform simple tests.
- Can identify and classify phenomena.
- Can use their observations and ideas to suggest answers to questions
- Can gather and recording data to help in answering questions.

Block	Unit	Key Targets and Learning Objectives	Key Activities		Key vocabulary	
1	Living Things	<ul style="list-style-type: none"> ➤ Identify similarities and differences between local environments and know about some of the ways in which these affect the animals and plants that are found there. ➤ Understand ways to care for the environment. ➤ Observe and talk about their observation of the weather, recording reports of weather data. 	<ul style="list-style-type: none"> ➤ Describe and compare different environments. ➤ Identify plants and animals found in different environments. ➤ Investigate local plants. ➤ Discuss how an environment meets and animals needs. ➤ Draw pictures which represent different weather conditions. ➤ Prepare short weather reports. 	<p>Going Green Link: Investigate the plants and animals in the local environment, e.g. school playground, local park or backyard at home.</p>	<p>Integration of technology: Using tablets, students take photographs of living things, around campus.</p>	Environment Natural Local Built Conditions Cold Wet Hot Dry Suited Adapted Investigation Observe Record Reduce Reuse Recycle Weather Conditions Report Forecast Observe

2	Electricity	<ul style="list-style-type: none"> ➤ Recognise the components of simple circuits involving cells (batteries) ➤ Know how a switch can be used to break a circuit. 	<ul style="list-style-type: none"> ➤ Build simple circuits. ➤ Name the components of a circuit. ➤ Observe different circuits and predict whether they will work or not. ➤ Explore when we uses switches. <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="background-color: #00b050; color: white; padding: 5px; width: 45%;"> <p>Going Green Link: Discuss ways to save electricity at home, e.g. by switching off the AC /lights when you leave the house.</p> </div> <div style="background-color: #ffff00; padding: 5px; width: 45%;"> <p>Integration of technology: Record videos of practical applications/ experiments made by students themselves.</p> </div> </div>	Circuit Battery Components Bulb Connect Switch Break
3	The Earth and Beyond	<ul style="list-style-type: none"> ➤ Explore how the Sun <i>appears</i> to move during the day and how shadows change. ➤ Model how the spin of the Earth leads to day and night, e.g. with different sized balls and a torch. 	<ul style="list-style-type: none"> ➤ Look at photographs of earth, identify land and sea. ➤ Locate Oman on a globe and explore what happens to our view of the sun as the earth spins. ➤ Use a torch and a globe to test out why we have day and night. <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="background-color: #00b050; color: white; padding: 5px; width: 45%;"> <p>Going Green Link: Identify which planets humans can survive on and the reasons why. Discuss how we can take care of the Earth.</p> </div> <div style="background-color: #ffff00; padding: 5px; width: 45%;"> <p>Integration of technology: Students research a planet.</p> </div> </div>	Earth Sun Star Sunrise Sunset Shadow Day Night Model
4	Light and Dark	<ul style="list-style-type: none"> ➤ Identify different light sources including the Sun. ➤ Know that darkness is the absence of light. ➤ Be able to identify shadows. 	<ul style="list-style-type: none"> ➤ Identify whether light sources are ‘natural’ or ‘human-made’. ➤ Investigate whether we need light to see things. ➤ Explore whether all shadows are the same. 	Sources Natural Sunlight Light Dark

			<p>Going Green Link: Identify the most energy efficient light sources, e.g. energy efficient light bulbs.</p>	<p>Integration of technology: Students design/research find examples of animals/creatures i.e. fireflies jellyfish etc.</p>	<p>Darkness Shadow Light source</p>	
5	<p>Material Properties and Changes</p>	<ul style="list-style-type: none"> ➤ Recognise some types of rocks and the uses of different rocks. ➤ Know that some materials occur naturally and other are manufactured. ➤ Know how the shapes of some materials can be changed by squashing, bending, twisting and/or stretching. ➤ Explore and describe the way some everyday materials change when they are heated or cooled. 	<ul style="list-style-type: none"> ➤ Describe the appearance of different rock samples. ➤ Search for rocks being used around the school. ➤ Identify objects which are 'natural' and objects which are 'manufactured'. ➤ Explore forces using modeling clay. ➤ Test the flexibility of different materials. ➤ Investigate how to make an object melt quicker. 	<p>Going Green Link: Identify natural materials from animals which are not environmentally friendly/conscious choices, e.g. leather, horns and fur. Discuss alternatives.</p>	<p>Integration of technology: -Students create bar charts/ graphs and show examples of data handling based on their scientific experience.</p>	<p>Hard Soft Fair test Properties Natural Materials Manufactured Squash Twist Shape Bend Stretch Flexible Rigid Cool Solid Heated Melt Elastic Dissolve Test</p>