



## PYP Science Curriculum 2020-21

<u>Living Things</u>				
Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
<ul style="list-style-type: none"> <li>• Identify healthy and unhealthy life style.</li> <li>• Apply healthy choices in their daily lives.</li> <li>• Relate and predict the consequences of the choices they make in their daily lives</li> </ul>	<ul style="list-style-type: none"> <li>• Observe and describe the characteristics of living beings.</li> <li>• Observe the needs of living things and interdependence.</li> <li>• Take responsibility for living things found in his or her environment.</li> <li>• Identify the parts of plants that are used by other living things (for example, for food, shelter, tools)</li> <li>• Be aware of the role of plants in sustaining life(for example, providing oxygen, food)</li> <li>• Show responsibility when caring for plants.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the parts of body systems and their role in sustaining life.</li> <li>• Recognize functions and interconnectedness of different body systems.</li> <li>• Identify ways to live a healthier lifestyle.</li> <li>• Identify the parts of systems and their role in sustaining life</li> <li>• Recognize functions of different body systems.</li> <li>• Reflect on their understanding of</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the significance of balance in the ecosystems</li> <li>• Gather information from a variety of primary and secondary sources</li> <li>• Use all senses to find and notice relevant details</li> <li>• Reflect and feedback on different interactions they observe</li> <li>• Explore a variety of perspectives</li> <li>• Apply skills and knowledge outside school</li> <li>• Draw conclusions and generalizations</li> </ul>	<ul style="list-style-type: none"> <li>• Identify various aspects of growth and development.</li> <li>• Become aware of the role of genetics in determining the different characteristics.</li> <li>• Understand the role of vaccination.</li> <li>• Explore health and safety issues facing children (for example, spread of disease, accidents, access to health care)</li> </ul>

	<ul style="list-style-type: none"> <li>• Identify or generate a question or problem to be explored in relation to human impact on the local environment.</li> <li>• Reflect on the impact of human activities on soil.</li> <li>• Assess the impact that changes in environmental conditions can have on living things</li> </ul>	<p>different body systems.</p> <ul style="list-style-type: none"> <li>• Identify different types of animals in the environment</li> <li>• Explore the interconnectedness of animals and plants in nature</li> <li>• Classify animals on the basis of feeding habits, shelter and movement.</li> <li>• Understand effects of changing environment on the living beings.</li> </ul>	<ul style="list-style-type: none"> <li>• Compare, contrast and draw connections among ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the role of vaccinations</li> <li>• Explain the need to act responsibly with regards to his or her health and the health of others (for example, colds, head lice)</li> </ul>
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## Earth and Space

<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<ul style="list-style-type: none"><li>• Explain the proper use of water.</li><li>• Recognize the sources of water.</li><li>• Apply ways to conserve water for future.</li><li>• Analyze the life without water</li></ul>	<ul style="list-style-type: none"><li>• Reflect on and self-assess his or her personal use of natural resources</li><li>• Investigate ways that familiar materials can be reused</li><li>• Group materials on the basis of properties for the purpose of recycling</li><li>• Describe how a particular material is recycled</li><li>• Explore the role of living things in recycling energy and matter.</li><li>• Explain people's responsibility regarding the use of materials from the environment.</li></ul>	<ul style="list-style-type: none"><li>• Assess the impact that changes in environmental conditions can have on living things</li><li>• Analyze ways in which humans use the natural environment.</li><li>• Analyze the ways in which humans affect the natural environment</li></ul>	<ul style="list-style-type: none"><li>• Assess the impact that changes in environmental conditions can have on living things</li><li>• Analyze ways in which humans use the natural environment.</li><li>• Analyze the ways in which humans affect the natural environment</li><li>• Compare, contrast and draw connections among ecosystems</li></ul>	<ul style="list-style-type: none"><li>• Identify regular and irregular events in time and space that occur in the solar system</li><li>• Examine the impact of events that occur in the solar system on the earth</li><li>• Investigate and explain how stars are used for navigation</li><li>• Demonstrate an understanding of other methods of navigation (for example, compasses, and satellites).</li></ul>

**Forces and Energy**

<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<ul style="list-style-type: none"><li>• Identify the changes in technology</li><li>• Reason out the disadvantages of technology on us</li><li>• Recognize and implement the proper use of technology</li></ul>	<ul style="list-style-type: none"><li>• Explore the use of imagination as a tool to solve problems (for example, particular inventions and scientific discoveries).</li><li>• Explore scientific and technological development that help people understand and respond to the changing earth</li><li>• Explore and investigate change in life style due to discoveries</li></ul>			<ul style="list-style-type: none"><li>• Identify and describe different forms of energy</li><li>• Demonstrate how energy can be stored and transformed from one form to another (for example, storage of fat, batteries as a store of energy)</li><li>• Explain the impact of diet in providing the body with sources of potential energy</li><li>• Assess renewable and sustainable energy sources (for example, wind, solar, water)</li><li>• Examine ways in which the local community could be improved in relation to the conservation of energy.</li></ul>

**Materials and Matter**

<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
	<ul style="list-style-type: none"> <li>• Investigate ways that familiar materials can be reused</li> <li>• Group materials on the basis of properties for the purpose of recycling</li> <li>• Describe how a particular material is recycled</li> <li>• Explore the role of living things in recycling energy and matter.</li> <li>• Explain people’s responsibility regarding the use of materials from the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the difference between solids, liquids and gases, in terms of ease of flow and maintenance of shape and volume.</li> <li>• Describe changes that occur when materials are heated and cooled.</li> <li>• Recognize reversible changes, including dissolving, melting, boiling, condensing, freezing and evaporating.</li> <li>• Identify the part played by evaporation and condensation in the water cycle.</li> <li>• Recognize that some solids (for example- salt and sugar) dissolve in water to give solutions but some (for example- sand, chalk) do not.</li> <li>• Investigate and identify the properties of matter</li> </ul>	<ul style="list-style-type: none"> <li>• Build research skills and identify reliable sources of information</li> <li>• Organize relevant information to form prior knowledge</li> <li>• Put thinking ahead of knowing</li> <li>• Make connections between objects and ideas</li> <li>• Consider ideas from multiple perspectives</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and describe different forms of energy</li> <li>• Demonstrate how energy can be stored and transformed from one form to another (for example, storage of fat, batteries as a store of energy)</li> <li>• Explain the impact of diet in providing the body with sources of potential energy</li> <li>• Assess renewable and sustainable energy sources (for example, wind, solar, water)</li> <li>• Examine ways in which the local community could be improved in relation to the conservation of energy.</li> </ul>

		<ul style="list-style-type: none"><li>• Examine how people use matter in their everyday lives</li><li>• Make and test predictions</li><li>• Identify or generate a question or problem to be explored</li><li>• Use scientific vocabulary to explain their observations and experiences</li></ul>		
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