

**GRADE 8 GENERAL SCIENCE**

**EASTER TERM PLAN**

**2024**

**LEAD TEACHER: KADESHA CRONEY**

**TERM TWO: January 08 - March 27, 2023**

<b>DATES</b>	<b>WEEK</b>	<b>THEORY</b>	<b>LABS/QUIZ/TESTS</b>
<b>January</b>			
<b>January 8-12</b>	<b>WEEK 1</b>	<ul style="list-style-type: none"><li>● Parent Consultations.</li><li>● A comprehensive review of the previous six weeks test and the returning of the papers.</li></ul>	
<b>January 15-19</b>	<b>WEEK 2</b> <b>2 Sessions</b>  <b>1 hr and 50 minutes</b>	<b>PHOTOSYNTHESIS</b> <ul style="list-style-type: none"><li>● Description of the process in the leaves and the equation for the process.</li><li>● Raw materials and products and the condition necessary for the process to occur.</li><li>● Outline of the two stages of photosynthesis.</li><li>● Role of water to release oxygen.</li><li>● Identification of the processes by which the raw materials needed are taken up by plants.</li></ul>	<b>LEARNING BY DOING SUGGESTED CLASS ACTIVITIES:</b> <ul style="list-style-type: none"><li>● Show a diagram on the board or use prepared visuals of the flowering plant. Discuss the structure of leaves (e.g., stomata, veins, chloroplasts) and their role in photosynthesis. Ask students to annotate the diagram with descriptions of the processes that occur in different parts of the leaf.</li></ul> <p>OR</p> <ul style="list-style-type: none"><li>● Conduct a hands-on experiment or simulation demonstrating the release of oxygen in photosynthesis. For instance, use an aquatic</li></ul>

			<p>plant in water and expose it to light. Collect the gas bubbles released from the plant (oxygen) in a test tube inverted over the plant.</p>
<p><b>January 22-26</b></p>	<p><b>WEEK 3</b> <b>2 Sessions</b></p> <p><b>1 hr and 50 minutes</b></p>	<p><b>PHOTOSYNTHESIS</b></p> <ul style="list-style-type: none"> <li>• Factors affecting the process of photosynthesis.</li> <li>• An elaboration of temperature, carbon dioxide, light intensity and oxygen.</li> </ul>	<p><b>LEARNING BY DOING SUGGESTED CLASS ACTIVITY:</b></p> <p>Set up an experiment using potted plants placed at varying distances from a light source (e.g., a lamp). Measure the distance between each plant and the light source. Monitor and record the rate of photosynthesis by observing the number of bubbles released by the plants in a set time. Discuss how light intensity affects the rate of photosynthesis and why certain plants thrive in specific light conditions.</p>
<p><b>January 29 -February 02</b></p>	<p><b>WEEK 4</b> <b>2 Sessions</b></p> <p><b>1 hr and 50 minutes</b></p>	<ul style="list-style-type: none"> <li>• A discussion on how the flowering plant uses the food produced during photosynthesis.</li> <li>• Photosynthesis review.</li> </ul>	<p><b>COURSEWORK #1:</b></p> <ul style="list-style-type: none"> <li>• Assign students to design, execute, and report on an experiment investigating a specific factor affecting photosynthesis. They can choose one of the factors (light intensity, CO2 concentration, temperature, or water availability) and conduct an experiment following the scientific method they learnt from grade 7.</li> </ul>
<p><b>FEBRUARY</b></p>			

<p>February 05 - February 09</p>	<p><b>WEEK 5</b> 2 Sessions</p> <p><b>1 hr and 50 minutes</b></p>	<p><b>FOOD CHAINS/ FOOD WEBS</b></p> <ul style="list-style-type: none"> <li>• Introduction to ecosystem feeding relationships.</li> <li>• Recall that plants are producers and are the source of energy for animals.</li> <li>• Examples of terrestrial and aquatic food chains.</li> </ul>	<p><b>LEARNING BY DOING SUGGESTED CLASS ACTIVITY:</b></p> <p>Divide the class into groups and assign each group either a terrestrial or aquatic ecosystem. Provide materials such as poster boards, markers, and images of organisms from the respective ecosystems. Instruct students to create visually appealing and informative posters or diagrams illustrating a food chain within their assigned ecosystem. Encourage them to include primary producers, consumers, and decomposers, labeling each organism and its role in the food chain. Ask each group to present their completed food chain display to the class, explaining the interactions and dependencies among the organisms.</p>
<p>February 12 - February 16</p>	<p><b>WEEK 6</b> 2-Sessions</p> <p><b>1 hr and 50 minutes</b></p>	<p><b>SIX WEEKLY TEST PHOTOSYNTHESIS &amp; FOOD CHAINS</b></p>	<p><b>SIX WEEKLY TEST PHOTOSYNTHESIS &amp; FOOD CHAINS</b></p>
<p>February 19 - February 23</p>	<p><b>WEEK 7</b> 2-Sessions</p> <p><b>1 hr and 50 minutes</b></p>	<p><b>FOOD CHAINS/ FOOD WEBS</b></p> <ul style="list-style-type: none"> <li>• The discussion of the importance of food webs, energy levels and the impact of humans on food web and food chains.</li> </ul>	<p><b>LEARNING BY DOING SUGGESTED CLASS ACTIVITY:</b></p> <p>Assign students various case studies or scenarios depicting human activities that impact food webs or food chains (e.g., deforestation, overfishing, pollution). Have students analyze and discuss the potential consequences of these human activities on the affected ecosystems.</p>

			Encourage students to brainstorm and propose solutions or mitigation strategies to reduce the negative impacts on food webs caused by human intervention.
<b>February 26 - March 01</b>	<b>WEEK 8 2-Sessions  1 hr and 50 minutes</b>	<ul style="list-style-type: none"> <li>● <b>FOOD CHAINS/ FOOD WEBS</b></li> <li>● Ecological pyramids</li> </ul>	<p><b>COURSEWORK #2</b></p> <p>Provide students with data or information on the energy distribution at each trophic level in a specific ecosystem. Ask students to create energy pyramids representing the flow of energy from producers to consumers in the ecosystem. Guide students in interpreting the energy pyramid, emphasizing the decrease in available energy at higher trophic levels and its implications for ecosystem stability.</p>
<b>MARCH</b>			
<b>March 04- March 08</b>	<b>WEEK 9 2-Sessions  1 hr and 50 minutes</b>	<ul style="list-style-type: none"> <li>● Predator/Prey Relationships</li> <li>● Review of Ecological feeding relationships.</li> </ul>	<p><b>LEARNING BY DOING SUGGESTED CLASS ACTIVITIES:</b></p> <p>Simulation Games - Predator vs. Prey: Organize a simulation game where students role-play as predators and prey in a specific ecosystem. Designate areas in the classroom or outdoors as habitats for both predators and prey. Assign specific rules, roles, and movement patterns for each group (e.g., predators need to tag prey to 'catch' them).</p>

			<p>Facilitate discussion after the game, allowing students to reflect on their experiences, strategies, and the dynamics of predator/prey interactions they observed.</p> <p><b>OR</b></p> <p>Curate or select videos showcasing predator/prey interactions in various habitats. Show these videos to the class, pausing at intervals to discuss observed behaviors, strategies employed by predators and prey, and the consequences of these interactions on ecosystem balance.</p> <p>Encourage students to make predictions about what might happen next in the interactions and to speculate on the long-term effects on populations.</p>
<p><b>March 11- March 15</b></p>	<p><b>WEEK 10</b> <b>2-Sessions</b></p> <p><b>1 hr and 50 minutes</b></p>	<p><b>HUMAN NUTRITION</b> <b>Food groups and nutrients</b></p> <ul style="list-style-type: none"> <li>● Proteins, Carbohydrates, Fats and oils.</li> <li>● Vitamins and minerals</li> </ul> <p>Calcium, iron, iodine, fiber, vitamin A, B, C, D, K</p>	
<p><b>March 18- March 22</b></p>	<p><b>WEEK 11</b> <b>2-Sessions</b></p> <p><b>1 hr and 50 minutes</b></p>	<ul style="list-style-type: none"> <li>● Planning snacks and meals.</li> <li>● Helpful hints for healthy living.</li> <li>● Food tests for starch, fats, reducing sugars and protein</li> </ul>	<p><b>LEARNING BY DOING SUGGESTED CLASS ACTIVITIES:</b></p> <p>Assign students to plan a day's worth of meals that cover all essential food groups and nutrients.</p> <p>Provide guidelines emphasizing the importance of incorporating proteins, carbohydrates, fats/oils, vitamins, and minerals into each meal.</p>

			Students can create meal plans using diagrams, charts, or actual menus, indicating specific food items and their nutrient content for breakfast, lunch, and dinner.
<b>March 25- March 27</b>	<b>WEEK 12 2-Sessions  1 hr and 50 minutes</b>	<ul style="list-style-type: none"> <li>• Food tests for starch, fats, reducing sugars and protein</li> </ul>	Set up different stations in the classroom, show each student how to test for a specific macromolecule (starch, fats, reducing sugars, protein).

**END OF TERM**