

Year Group: 8		Subject: Science	Term: Summer 2022
Topic	Key Learning points		Assessment
<b>Biology:</b> Photosynthesis	<i>End Point: Understand that photosynthesis is a biochemical process that stores energy from sunlight in glucose. Give a simple explanation of how specific adaptations and specialised cells facilitate photosynthesis in plants.</i> <ul style="list-style-type: none"><li>Describe how structures of specialised cells plant cells (root hair cell and palisade) are related to function</li><li>Describe photosynthesis using a word equation</li><li>Describe the function of stomata</li><li>Describe the test for starch</li><li>Explain why leaves left in sunlight test positive for starch</li><li>Compare gas levels around a plant linking with ideas about rate of photosynthesis and respiration in daytime and night time</li><li>Describe limiting factors graphs in terms of limiting the rate of photosynthesis</li><li>Describe extremophile plant adaptations</li></ul>		<p>Students will be formatively assessed during each topic by weekly multiple-choice tests in class:</p> <ul style="list-style-type: none"><li>Before each assessment students will complete a revision homework</li><li>After each assessment there will be an opportunity for students to review their understanding</li><li>Teachers will provide students with targeted feedback, based on their test performance</li></ul> <p>At the end of the term students will have a summative assessment. This will be a 45-mark exam paper (15 marks from each topic), which will be peer marked and checked by their teacher.</p>
<b>Chemistry:</b> Reactions of Metals	<i>End Point: Identify the properties of metals and describe the different reactions of metals. Know how salts of formed through the reactions of acids and bases and describe how metals can be protected from corrosion.</i> <ul style="list-style-type: none"><li>Write word equations for the reaction of metals and acids</li><li>Predict the name of salts formed</li><li>Describe the test for hydrogen (squeaky pop).</li><li>Know that a more reactive metal will displace a less reactive metal from a compound</li><li>Predict the order of reactivity of metals from displacement reactions</li><li>Write word equations for the reaction of acids and metal carbonates</li><li>Describe how to test for carbon dioxide (limewater)</li><li>Know that a salt is a compound formed by the neutralisation of an acid with a base</li><li>Know that all metal oxides are bases and can neutralise acids</li><li>Describe how to prepare a soluble salt from an insoluble metal oxide</li><li>Know that corrosion is the reaction of oxygen with the surface of a metal</li><li>Know the conditions required for rusting</li><li>Know that a physical barrier can be used to prevent oxygen and/or water from reaching a metal to stop corrosion</li></ul>		
<b>Physics:</b> Space	<i>End Point: Know the structure of the solar system and be able to use the solar system model to explain why we experience day, night, months, years and seasons</i> <ul style="list-style-type: none"><li>Know that our sun is a star and know that there are other galaxies and stars in other galaxies</li><li>Know the name and order of the planets in our solar system</li><li>Know that the earth orbits the sun and know how many days are in a year.</li><li>Know that the earth rotates on its axis and that the axis is tilted</li><li>Describe why we experience day and night</li><li>Know the seasons and understand day length at different times of the year and in different hemispheres</li><li>Know that the moon orbits the earth and know the phases of the moon</li><li>Know the history of the model of the solar system, including the work of Aristotle, Copernicus, Galileo and Kepler.</li><li>Know that the light year can be used as a unit of astronomical distance</li></ul>		