



مدرسة القديسة مريم الكاثوليكية الثانوية – دبي  
ST. MARY'S CATHOLIC HIGH SCHOOL, DUBAI

Lesson Plan

<b>Subject</b>	Science
<b>Class/ Section</b>	Year 8
<b>Week</b>	Week-4: 19 <sup>th</sup> September to 23 <sup>rd</sup> September
<b>Work send to students by</b>	Google classroom
<b>Total number of lessons per week</b>	4
<b>Unit/Topic</b>	8E Combustion
<b>Key Vocabulary</b>	Combustion, reactant, product, hydrocarbon, thermal decomposition, Oxidation, conservation, metals, non-metals, phlogiston
<b><u>Specific Learning Objective</u></b> <b><u>Specific Intended Learning Outcomes</u></b>	<b><u>Lesson 1 &amp; 2- (8Ea) Burning Fuels</u></b> <ul style="list-style-type: none"><li>• To know what forms when a fuel reacts with oxygen.</li><li>• Recall what a fuel is.</li><li>• Describe the reactions of hydrogen and hydrocarbons with oxygen.</li><li>• Understand what is meant by a hydrocarbon.</li><li>• Use word equations to model combustion reactions</li></ul>
<b>Tasks</b>	<ol style="list-style-type: none"><li>1. Remind the children what fossil fuels are. Explain the term hydrocarbon.</li><li>2. Through AT ppt Burning fuels remind the children what the reactants and the products in a reaction are by giving examples through word equations.( From Chemical reactions part 3- types of reactions-Oxidation- Use slide 14, 15,16 for word equations in <i>DOODLE BOARDWORKS</i>)</li><li>3. Explain the test for the products of combustion.</li><li>4. Students write the word equation for combustion reactions and identify reactants and products.</li><li>5. Answer the questions on pages 70-71 in Exploring Science International-8</li></ol>
<b>Assessment Criteria/</b>	

<b>Essential questions</b>	<p><b>Support-</b> Q 1- 4 in which they define fuel and describe the ways energy is transferred from the fuels to the surroundings.</p> <p><b>Stretch-</b> Q5-7 in which they write word equations for combustion reaction of hydrogen and fossil fuels.</p> <p><b>Extend-</b> Q 8-10 in which the children write a test for products of combustion of fossil fuels and explain what makes a fire to continue even if the heat source is removed.</p>
<b>Resources</b>	<p>Text Book-Exploring Science International 8</p> <p>AT video <i>Hindenburg disaster</i></p> <p>AT interactive ppt on Burning Fuel</p>

<p><b><u>Specific Learning Objective</u></b></p> <p><b><u>Specific Intended Learning Outcomes</u></b></p>	<p><b><u>Lesson 3- (8Eb) Oxidation</u></b></p> <ul style="list-style-type: none"> <li>• To know how metals react with oxygen.</li> <li>• Know what an oxidation reaction is.</li> <li>• Describe oxidation reactions of metals and non-metals.</li> <li>• State law of conservation of mass.</li> <li>• Explain changes in mass seen in oxidation reactions.</li> <li>• Compare how phlogiston and oxygen explain combustion.</li> </ul>
<b>Tasks</b>	<ol style="list-style-type: none"> <li>1. Remind the children that combustion reactions involve combination with oxygen.</li> <li>2. Explain why the mass is conserved during a combustion reaction using AT interactive ppt on Mass in reactions</li> <li>3. Students explore the combustion of hydrogen, methane, nitrogen and sulphur through particle model in the AT ppt Oxidation.</li> <li>4. Using AT ppt on theories of combustion describe the old theory of combustion- <i>The Phlogiston Theory</i>.</li> <li>5. Students compare and contrast the Phlogiston theory with the modern Oxygen Theory.</li> <li>6. Students answer the questions on page 72-73 of the text book Exploring Science International 8.</li> </ol>
<b>Assessment Criteria/ Essential questions</b>	<p><b>Support-</b> Q 1-3 on pg72 of text book the children write the word equation for combustion of some metals and non metals.</p> <p><b>Stretch-</b> Q 4-5 on pg73 of text book the children write Explain the increase in the mass of product when magnesium burns.</p> <p><b>Extend-</b> Q6 on pg73 of text book the children explain the difference between Phlogiston theory and the modern oxygen theory using law of conservation of mass.</p>
<b>Resources</b>	<p>Text Book-Exploring Science International 8</p> <p>AT ppt Oxidation</p> <p>AT interactive ppt on Mass in reactions</p> <p>AT ppt on theories of combustion</p>

<p><b><u>Specific Learning Objective</u></b></p> <p><b><u>Specific Intended Learning Outcomes</u></b></p>	<p><b><u>Lesson 4 - (8Eb) Oxidation</u></b></p> <ul style="list-style-type: none"> <li>• To reinforce how metals react with oxygen.</li> <li>• State what happens to mass in a chemical reaction.</li> <li>• Describe the reactions of metals with oxygen.</li> <li>• Identify and explain the products formed by the oxidation of metals.</li> </ul>
<p><b>Tasks</b></p>	<ol style="list-style-type: none"> <li>1. Recall combustion as combining with oxygen.</li> <li>2. Discuss question 3 &amp; 4 of worksheet to make them reactants and products of combustion of hydrogen and other fossil fuels.</li> <li>3. Students explore the combustion of hydrogen and fuel in spirit lamp and write reactants and products.</li> <li>4. Recall tests for carbon dioxide and water</li> <li>5. Students answer the questions 6 of worksheet.</li> </ol>
<p><b>Assessment Criteria/ Essential questions</b></p>	<p>Solve differentiated worksheet</p> <p><b>Support</b> – Q1 Recall what fossil fuel is, products of combustion</p> <p><b>Stretch</b> – Q2-4 Write word equations for combustion of metals&amp; fossil fuels</p> <p><b>Extend</b>- Q 6 &amp;7 Explain the test of products of combustion</p>
<p><b>Resources</b></p>	<p><b>Worksheet 8Eb1 – Oxidation</b></p>