

Old Town School Department's Science Curriculum

Topic, Unit, Theme or Process _____ Grade Level/Course 8 Page 1

Essential Understanding _____

Essential Question _____

Maine LEARNING RESULTS Links (Standard and PI)	Introduce (I) Mastery (M) or Review (R)	Activities	Resources	Assessments
<p><u>Matter and Energy</u> Students describe physical and chemical properties of matter, interactions and changes in matter, and transfer of energy through matter.</p> <p>h. Describe several different types of energy forms including heat energy, chemical energy, and mechanical energy.</p> <p>i. Use examples of energy transformations from one form to another to explain that energy cannot be created or destroyed.</p> <p>j. Describe how <i>heat</i> is transferred from one object to another by conduction, convection, and/or radiation.</p>	<p style="text-align: center;">M</p> <p style="text-align: center;">M</p> <p style="text-align: center;">M</p>			

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Maine LEARNING RESULTS Links (Standard and PI)	Introduce (I) Mastery (M) or Review (R)	Activities	Resources	Assessments
<p><u>Matter and Energy</u> Students describe physical and chemical properties of matter, interactions and changes in matter, and transfer of energy through matter.</p> <p>a. Describe that all matter is made up of atoms and distinguish between/among elements, atoms, and molecules.</p> <p>b. Describe how physical characteristics of elements and types of reactions they undergo have been used to create the Periodic Table.</p> <p>c. Describe the difference between physical and chemical change.</p> <p>d. Explain the relationship of the motion of atoms and molecules to the states of matter for gases, liquids, and solids.</p> <p>e. Explain how atoms are packed together in arrangements that compose all substances including elements, compounds, mixtures, and solutions.</p> <p>f. Explain and apply the understanding that substances have characteristic properties, including density, boiling point, and solubility and these properties are not dependent on the amount of matter present. .</p> <p>g. Use the idea of atoms to explain the conservation of matter.</p>	<p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p>			

<p><u>Heredity & Reproduction</u> Students describe the general characteristics and mechanisms of reproduction and heredity in organisms, including humans, and ways in which organisms are affected by their genetic traits.</p> <p>a. Explain that sexual reproduction includes fertilization that results in the inclusion of genetic information from each parent and determines the inherited traits that are a part of every cell.</p> <p>c. Describe asexual reproduction as a process by which all genetic information comes from one parent and determines the inherited traits that are a part of every cell.</p>	<p>M</p> <p>M</p>			<p>Page 3b</p>
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