

## Grade 3

### Activity: **Cold Cash in the Icebox**

Page: 373

#### Properties of Matter

How does the structure of matter affect the properties and uses of materials?

<b>Content Standards</b> (focus of standard)	<b>Activity Objectives</b> (from Project WET activity)	<b>CMT</b> <b>Correlation/Expected</b> <b>Performances</b>
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b> &gt; Heating and cooling cause changes in some of the properties of materials.</p>	<p>1. Compare the insulating properties of various materials</p>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>

### Activity: **Energetic Water**

Page 242

#### Properties of Matter

How does the structure affect the properties and uses of materials?

<b>Content Standards</b>	<b>Activity Objectives</b>	<b>CMT</b> <b>Correlation/Expected</b> <b>Performances</b>
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b> &gt; Heating and cooling cause changes in some of the properties of materials.</p>	<p>1. Identify the forms of energy in water 2. Demonstrate how water can be used to do work.</p>	<p>B1. Sort and classify materials based on properties such as dissolving in water, sinking and floating, conducting heat, and attracting magnets.</p>

Activity: **Every Drop Counts**

Page 307

Science and Technology in Society  
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.4 Earth materials provide resources for all living things, but these resources are limited and should be conserved.</b>                      &gt;Decisions made by individuals can impact the global supply of many resources.</p>	<ol style="list-style-type: none"> <li>1. Determine how water conservation practices save water.</li> <li>2. Identify water conservation habits they can change or adopt.</li> <li>3. Recognize that water conservation is important.</li> </ol>	<p>B7. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.</p>

Activity: **Geyser Guts**

Page 144

Properties of Matter  
 How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b>                      &gt;Heating and cooling cause changes in some of the properties of materials.</p>	<ol style="list-style-type: none"> <li>1. List the conditions necessary for a geyser</li> <li>2. Compare and contrast a geyser, hot spring, fumaroles, and mud pot.</li> </ol>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>

Activity: **Geyser Guts**

Page 144

The Changing Earth  
How do materials cycle through the earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.3 Earth materials have different physical and chemical properties.</b> &gt;Rocks and minerals have properties that may be identified through observation and testing; these properties determine how earth materials are used.</p>	<ol style="list-style-type: none"> <li>1. List the conditions necessary for a geyser</li> <li>2. Compare and contrast a geyser, hot spring, fumaroles, and mud pot.</li> </ol>	<p>B5. Describe the physical properties of rocks and relate them to their potential uses.</p> <p>B6. Relate the properties of rocks to the possible environmental conditions during their formation.</p>

Activity: **H<sub>2</sub>Olympics**

Page: 30

Properties of Matter  
How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b> &gt; Heating and cooling cause changes in some of the properties of materials.</p>	<ol style="list-style-type: none"> <li>1. Demonstrate adhesive and cohesive properties of water.</li> <li>2. Relate adhesion and cohesion to daily activities.</li> </ol>	<p>B1. Sort and classify materials bases on properties such as dissolving in water, sinking and floating, conducting heat, and attracting to magnets.</p> <p>B2. Describe the effect of heating on the melting, evaporation,</p>

		condensation and freezing of water.
--	--	-------------------------------------

Activity: **Imagine!**

Page: 157

Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b>                      &gt;Heating and cooling cause changes in some of the properties of materials.</p>	<ol style="list-style-type: none"> <li>1. Identify changes in states of water that enable water to move through the water cycle.</li> <li>2. Describe the water cycle.</li> </ol>	<p>B1. Sort and classify materials based on properties such as dissolving in water, sinking and floating, conducting heat, and attracting magnets.</p> <p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>

Activity: **Let's Even Things Out**

Page: 72

Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b>                      &gt; Heating and cooling</p>	<ol style="list-style-type: none"> <li>1. Describe and demonstrate the processes of osmosis and diffusion.</li> </ol>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>

cause changes in some of the properties of materials.		
---	--	--

Activity: **Macroinvertebrate Mayhem**

Page: 322

Heredity and Evolution

What processes are responsible for life's unity and diversity?

<b>Content Standards</b>	<b>Activity Objectives</b>	<b>CMT Correlation/Expected Performances</b>
<p><b>3.2 Organisms can survive and reproduce only in environments that meet their basic needs.</b>                      &gt; Plants and animals have structures and behaviors that help them survive in different environments.</p>	<ol style="list-style-type: none"> <li>1. Illustrate how tolerance to water quality conditions varies among macroinvertebrate organisms.</li> <li>2. Explain how population diversity provides insight into the health of an ecosystem.</li> </ol>	<p>B4. Describe how different plants and animals are adapted to obtain air, water, food and protection in water habitats.</p>

Activity: **Molecules in Motion**

Page: 47

Properties of Matter

How does the structure of matter affect the properties and uses of materials?

<b>Content Standards</b>	<b>Activity Objectives</b>	<b>CMT Correlation/Expected Performances</b>

<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b> Heating and cooling cause changes in some of the properties of materials.</p>	<p>1. Model the effects of heat energy on the state of water</p>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>
---	--	--

Activity: **Rainy-Day Hike**

Page: 186

The Changing Earth  
How do materials cycle through the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.3 Earth materials have different physical and chemical properties.</b> &gt; Rocks and minerals have properties that may be identified through observation and testing; these properties determine how earth materials are used.</p>	<ol style="list-style-type: none"> <li>1. Identify the watershed in which their school is located.</li> <li>2. Explain the role the schoolyard plays in the watershed.</li> </ol>	<p>B5. Describe the physical properties of rocks and relate them to their potential uses.</p> <p>B6. Relate the properties of rocks to the possible environmental conditions during their formation.</p>

Activity: **Reaching Your Limits**

Page: 344

Properties of Matter  
How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b>                      &gt; Heating and cooling cause changes in some of the properties of materials.</p>	<ol style="list-style-type: none"> <li>1. Describe the relationship between water quality and water treatment.</li> <li>2. Be aware of the ratio of one to a million.</li> </ol>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation, and freezing of water.</p>

Activity: **Reaching Your Limits**

Page: 344

Science and Technology in Society  
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.4 Earth materials provide resource for all living things, but these resources are limited and should be conserved.</b>                      &gt; Decisions made by individuals can impact the global supply of many resources.</p>	<ol style="list-style-type: none"> <li>1. Describe the relationship between water quality and water treatment.</li> <li>2. Be aware of the ratio of one to a million.</li> </ol>	<p>B7. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.</p>

Activity: **Salt Marsh Players**

Page: 99

Heredity and Evolution

What processes are responsible for life’s unity and diversity?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.2 Organisms can survive and reproduce only in environments that meet their basic needs.</b>                      &gt;Plants and animals have structures and behaviors that help them survive in different environments.</p>	<ol style="list-style-type: none"> <li>1. Demonstrate how various salt marsh plants and animals adapt to environmental conditions</li> <li>2. Recognize various plants and animals that live in salt marshes</li> </ol>	<p>B4. Describe how different plants and animals are adapted to obtain air, water, food and protection in water habitats.</p>

Activity: **Sum of the Parts**

Page: 267

Science and Technology in Society

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.4 Earth materials provide resources for all living things, but these resources are limited and should be conserved.</b>                      &gt; Decisions made by individuals can impact the global supply of many resources.</p>	<ol style="list-style-type: none"> <li>1. Distinguish between point and non-point source pollution.</li> <li>2. Recognize that everyone contribute to and is responsible for a river or lake’s water quality.</li> <li>3. Identify Best Management Practices to reduce pollution.</li> </ol>	<p>B7. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.</p>

Activity: **The Incredible Journey**

Page: 161

Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b>                      &gt; Heating and cooling cause changes in some of the properties of materials.</p>	<ol style="list-style-type: none"> <li>1. Describe the movement of water within the water cycle.</li> <li>2. Identify the states of water as it moves through the water cycle.</li> </ol>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>

Activity: **The Long Haul**

Page: 260

Environmental Science

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.4 Earth materials provide resources for all living things, but these resources are limited and should be conserved.</b>                      &gt; Decisions made by individuals can impact the global supply of many resources.</p>	<ol style="list-style-type: none"> <li>1. Develop an awareness of various volumes of water.</li> <li>2. Appreciate today's readily available water supplies.</li> <li>3. Relate how easy access to water can encourage people to use large amounts of water.</li> </ol>	<p>B7. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.</p>

Activity: **Water Address**

Page: 122

Heredity and Evolution

What processes are responsible for life's unity and diversity?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.2 Organisms can survive and reproduce only in environments that meet their basic needs.</b>                      &gt; Plants and animals have structures and behaviors that help them survive in different environments.</p>	<p>1. Recognize water-related adaptations of some plants and animals.</p>	<p>B4. Describe how different plants and animals are adapted to obtain air, water, food and protection in water habitats.</p>

Activity: **Water Match**

Page 50

Earth Science

Content Standard	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b>                      &gt; Heating and cooling cause changes in some of the properties of materials.</p>	<p>1. Identify the three stages of water; solid, liquid, and gas                      2. Recognize that water can become polluted and that some water can be cleaned.</p>	<p>B1. Sort and classify materials based on properties such as dissolving in water, sinking and floating, conducting heat, and attracting to magnets.                       B2. Describe the effect of heating on the melting, evaporation, condensation and</p>

		freezing of water.
--	--	--------------------

Activity: **Water Meter**

Page: 271

Science and Technology in Society  
How do science and technology affect the quality of our lives?

<b>Content Standards</b>	<b>Activity Objectives</b>	<b>CMT Correlation/Expected Performances</b>
<p><b>3.4 Earth materials provide resource for all living things, but these resources are limited and should be conserved.</b> &gt;Decisions made by individuals can impact the global supply of many resources.</p>	<p>1. Become aware of their daily use of water.</p>	<p>B7. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.</p>

Activity: **Water Models**

Page: 201

Properties of Matter  
How does the structure of matter affect the properties and uses of materials?

<b>Content Standards</b>	<b>Activity Objectives</b>	<b>CMT Correlation/Expected Performances</b>
<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b></p>	<p>1. Recognize the roles of condensation and evaporation in the water cycle. 2. Relate the water cycle to different climates and</p>	<p>B2. Describe the effect of heating on the melting, evaporation, condensation and freezing of water.</p>

> Heating and cooling cause changes in some of the properties of materials.	ecosystems around the world.	
---	------------------------------	--

Activity: **Water Works**

Page: 274

Science and Technology in Society  
How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p><b>3.4 Earth materials provide resources for all living things, but these resources are limited and should be conserved.</b></p> <p>&gt; Decisions made by individuals can impact the global supply of many resources.</p>	<ol style="list-style-type: none"> <li>1. Distinguish between direct and indirect uses of water.</li> <li>2. Illustrate the interconnectedness of water users in a community.</li> <li>3. Demonstrate the complexity of resolving water shortages among interdependent community water users.</li> </ol>	<p>B7. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.</p>

Activity: **What's The Solution?**

Page: 54

Properties of Matter  
How does the structure of matter affect the properties and uses of materials?

Content Standards (focus of standard)	Activity Objectives (from Project WET activity)	CMT Correlation/Expected Performances
--	--	---------------------------------------

<p><b>3.1 Materials have properties that can be identified and described through the use of simple tests.</b> &gt;Heating and cooling cause changes in some of the properties of materials.</p>	<ol style="list-style-type: none"><li>1. Discriminate solutions from other mixtures.</li><li>2. Demonstrate water's ability to dissolve solids, liquids, and gases.</li></ol>	<p>B1. Sort and classify materials based on properties such as dissolving in water, sinking and floating, conducting heat, and attracting to magnets</p>
---	---	--

Revised 1/23/09