

Course: K

Course Code: 5020010

Quarter: 4

**Topic of Study: Energy**

**Big Ideas: 10.** Forms of Energy

**Essential Questions:** What is sound? What is light? What is heat?

**Optional Teacher Background:** *ScienceSaurus*-Physical Science

RESOURCES

SCIENCE CENTER

**Vocabulary: sound, vibrate, light, heat**

**Common Labs:**

- *Science Fusion* Inquiry Flipchart “Compare Sounds”, p. 12
- *Science Fusion* Inquiry Flipchart “Observe How the Sun Changes Paper” p. 13
- *Science Fusion* Inquiry Teacher Edition “What Can Heat Do?” T.E. pg. 211

Science Songs CD Track: 18

	<b>Technology Links:</b>	
<b>Lab Assistance:</b>	<b>Science Links:</b>	<b>Online Guides:</b>
<a href="#">Daily Inquiries</a> <a href="#">Body Systems</a>	<a href="http://www.Thinkcentral.com">www.Thinkcentral.com</a> <a href="#">Graphic Organizers and Strategies</a>	<a href="#">Above Level</a> <a href="#">On Level</a> <a href="#">Below Level</a>

NGSSS	Content	Targets
SC.K.P.10.1 Observe that things that make sound vibrate. Cognitive Complexity: <b>Low</b>	What is sound? <ul style="list-style-type: none"> <li>▪ High sounds</li> <li>▪ Low sounds</li> <li>▪ Loud sounds</li> <li>▪ Soft sounds</li> </ul> What is light? <ul style="list-style-type: none"> <li>▪ Sun</li> <li>▪ Flashlight</li> <li>▪ Lamp</li> </ul> What is heat? <ul style="list-style-type: none"> <li>▪ Some things give off heat.</li> <li>▪ Many things give off both heat and light.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Observe that sound is made when objects vibrate.</li> <li>▪ Identify sounds and the sources of their vibrations.</li> <li>▪ Compare sounds for loudness, pitch, and rhythm.</li> <li>▪ Identify the ear as a receiver of vibrations that produce sound.</li> <li>▪ Recognize the sun as Earth’s source heat.</li> <li>▪ Identify human-made sources of light.</li> <li>▪ Recognize that sound, light, and heat are kinds of energy.</li> </ul>

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**Topic of Study: Matter**

**Big Ideas:** 8. Properties of Matter 9. Changes in Matter

**Essential Questions:** How do we describe and sort matter? How can we change matter? How can heating and cooling change matter?

**Vocabulary: matter, change, heat, cool**

**Common Labs:**

- *Science Fusion* Inquiry Flipchart “Compare Objects” p. 10
- *Science Fusion* Inquiry Flipchart “Tell Ways to Change Objects” p.11
- *Science Fusion* Inquiry Teacher Edition “How Does Heating Change Ice?” T.E. p. 177

Science Songs CD Tracks:

14,15,16

NGSSS	Content	Targets
<p>SC.K.P.8.1 Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture. Cognitive Complexity: <b>Moderate</b></p> <p>SC.K.P.9.1 Recognize that the shape of materials such as paper and clay can be changed by cutting, tearing, crumpling, smashing, or rolling. Cognitive Complexity: <b>Moderate</b></p>	<p>How do we describe and sort matter?</p> <ul style="list-style-type: none"> <li>▪ Solid</li> <li>▪ Liquid</li> <li>▪ Gas</li> <li>▪ Size</li> <li>▪ Shape</li> <li>▪ Color</li> <li>▪ Texture</li> <li>▪ Weight</li> <li>▪ Temperature</li> </ul> <p>How can we change matter?</p> <ul style="list-style-type: none"> <li>▪ Tear</li> <li>▪ Smash</li> <li>▪ Roll</li> <li>▪ Bend</li> <li>▪ Cut</li> <li>▪ Fold</li> <li>▪ Crumple</li> </ul> <p>How can heating and cooling change matter?</p> <ul style="list-style-type: none"> <li>▪ Matter may change when it heats up.</li> <li>▪ Matter may change when it cools.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify matter as a solid, a liquid, or a gas.</li> <li>• Observe and describe properties of objects.</li> <li>• Compare and sort objects based on observable properties.</li> <li>• Describe how paper and clay can be changed.</li> <li>• Recognize that the shape of materials can be changed by cutting, tearing, crumpling, smashing, or rolling.</li> <li>• Recognize physical changes of matter.</li> <li>• Observe, record, and discuss how matter can be changed by heating.</li> <li>• Observe, record, and discuss how matter can be changed by cooling.</li> </ul>