

**Curriculum Development Overview  
Unit Planning for 3<sup>rd</sup> Grade Science**

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|--|--|--|-----------------------|-------------|
| <b>Unit Title</b>                              | You're Hot and You're Cold – States of Matter  |  | <b>Length of Unit</b> | 2 – 4 weeks |
| <b>Focusing Lens(es)</b>                       | Change   | <b>Standards and Grade Level Expectations Addressed in this Unit</b> | SC09-GR.3-S.1-GLE.1   |             |
| <b>Inquiry Questions (Engaging-Debatable):</b> | <ul style="list-style-type: none"> <li>Why does matter change from one form to another?</li> <li>What would life be like if there was only one state of matter?</li> </ul> |  |                       |             |
| <b>Unit Strands</b>                            | Physical Science   |  |                       |             |
| <b>Concepts</b>                                | matter, change, solid, liquid, gas, heating, properties, water, phases   |  |                       |             |

| <b>Generalizations</b><br>My students will <b>Understand</b> that...   | <b>Guiding Questions</b>  |  |
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|  | <b>Factual</b>  | <b>Conceptual</b>  |
| Solids, liquids and gases have distinguishable properties that identify their state of matter (SC09-GR.3-S.1-GLE.1-EO.c) | What are the states of matter? (SC09-GR.3-S.1-GLE.1-EO.c; IQ.1)<br>What are the properties of solids, liquids and gases? (SC09-GR.3-S.1-GLE.1-EO.a,b,c) | How can the state of matter of any object be changed? (SC09-GR.3-S.1-GLE.1-EO.c; IQ.1)<br>How can the state of matter of any object be identified? (SC09-GR.3-S.1-GLE.1; IQ.1)       |
| Heating and removing heat changes the state of matter (SC09-GR.3-S.1-GLE.1)  | Heating and removing heat changes the state of matter (SC09-GR.3-S.1-GLE.1-EO.b)  | How does heating and cooling affect the state of matter? (SC09-GR.3-S.1-GLE.1-EO.b)<br>Where around the school would snow take the longest to melt? Why? (SC09-GR.3-S.1-GLE.1; IQ.2) |

| <b>Critical Content:</b><br>My students will <b>Know</b> ...  | <b>Key Skills:</b><br>My students will be able to <b>(Do)</b> ...  |
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| <ul style="list-style-type: none"> <li>Matter freezes, melts, boils, and condenses (SC09-GR.3-S.1-GLE.1-EO.a)</li> <li>That heating and removing heat affect states of matter (SC09-GR.3-S.1-GLE.1-EO.b)</li> <li>The states of matter (SC09-GR.3-S.1-GLE.1-EO.c)</li> <li>Examples of the distribution of water on Earth in different forms such as vapor, ice or glaciers, rivers, and freshwater or saltwater oceans (SC09-GR.3-S.1-GLE.1; RA.1)</li> <li>That there is a limited amount of water available for human use (SC09-GR.3-S.1-GLE.1; RA.2)</li> </ul> | <ul style="list-style-type: none"> <li>Analyze and interpret observations (SC09-GR.3-S.1-GLE.1-EO.a)</li> <li>Use evidence to develop a scientific explanation (SC09-GR.3-S.1-GLE.1-EO.b)</li> <li>Ask a testable question and design a method to find the answer, collect data, and form a conclusion (SC09-GR.3-S.1-GLE.1; N.1)</li> <li>Demonstrate the importance of keeping accurate observations and notes in science (SC09-GR.3-S.1-GLE.1; N.2)</li> <li>Share results of experiments with others, and respectfully discuss results that are not expected (SC09-GR.3-S.1-GLE.1; N.3)</li> </ul> |

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| <p><b>Critical Language:</b> includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.<br/>         EXAMPLE: A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: <i>“Mark Twain exposes the hypocrisy of slavery through the use of satire.”</i></p> |  |
| <p><b>A student in _____ can demonstrate the ability to apply and comprehend critical language through the following statement(s):</b></p>  | <p><i>Matter exists in different states such a solid, liquid, or gas.<br/>         Matter can change from one state to another by heating and cooling (removing heat).</i></p> |
| <p><b>Academic Vocabulary:</b></p>  | <p>analyze, evidence, interpret, observation, scientific explanation</p>   |
| <p><b>Technical Vocabulary:</b></p>   | <p>freeze, melt, boil, condense, vapor, ice, glacier, river, freshwater, saltwater oceans</p>  |