

**Rangely RE-4 Curriculum Development
3rd Grade Science**

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

Generalizations My students will Understand that...	Guiding Questions	
	Factual	Conceptual
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) 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) 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) Where around the school would snow take the longest to melt? Why? (SC09-GR.3-S.1-GLE.1; IQ.2)

Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> • Matter freezes, melts, boils, and condenses (SC09-GR.3-S.1-GLE.1-EO.a) • That heating and removing heat affect states of matter (SC09-GR.3-S.1-GLE.1-EO.b) • The states of matter (SC09-GR.3-S.1-GLE.1-EO.c) • 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) • That there is a limited amount of water available for human use (SC09-GR.3-S.1-GLE.1; RA.2) 	<ul style="list-style-type: none"> • Analyze and interpret observations (SC09-GR.3-S.1-GLE.1-EO.a) • Use evidence to develop a scientific explanation (SC09-GR.3-S.1-GLE.1-EO.b) • 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) • Demonstrate the importance of keeping accurate observations and notes in science (SC09-GR.3-S.1-GLE.1; N.2) • Share results of experiments with others, and respectfully discuss results that are not expected (SC09-GR.3-S.1-GLE.1; N.3)

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