

| Stage 1 - Desired Results | |
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| <p>ESTABLISHED GOALS (CCSS)</p> <p>RST 9.1 - Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.</p> <p>RST 9.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 9-10 texts and topics</i>.</p> <p>RST 9.7 - Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.</p> <p>RI 9.4 - Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone.</p> | <p>Transfer</p> |
| | <p>Students will be able to independently use their learning to...</p> <p>Recognize the different states of matter. Identify the different forms of matter. Describe the different types of chemical bonds. Identify and communicate information about the elements of the Periodic Table using their symbols. Apply basic characteristics of matter to the formation and structure of earth materials.</p> |
| | <p>Meaning</p> |
| | <p>Acquisition</p> |
| | <p>ESSENTIAL QUESTIONS:</p> <p>What are the different states in which matter exists? What are the 3 basic forms of matter? What is the simplest form of an element? What is an isotope? What are the different chemical bonds and how are they different? What effect does the type of chemical bond have on the physical properties of a substance? Why are chemical formulas used? How is a mixture different from a compound?</p> |
| | <p>UNDERSTANDINGS</p> <p>Students will understand that...</p> <p>Matter exists in different states and forms.</p> <p>Atoms bond together in different ways to form most substances.</p> <p>Substances are defined and described through chemical formulas.</p> |
| | <p>Students will know...</p> <p>That matter exists as a solid, liquid, gas, or plasma.</p> <p>Matter is made up of atoms of one or more elements.</p> <p>An atoms structure allows it to bond chemically with other atoms.</p> <p>The combination of various atoms forms substances like minerals.</p> |
| | <p>Students will be skilled at...</p> <p>Recognizing matter in its various states and forms and give examples of each.</p> <p>Drawing or creating a model of the structure of an atom showing the 3 atomic particles.</p> <p>Telling the difference between an ionic and a covalent chemical bond.</p> <p>Writing chemical formulas.</p> <p>Using chemical formulas to classify substances, like minerals.</p> |

| Stage 2 - Evidence | | | | |
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| Evaluative Criteria | Assessment Evidence | | | |
| PERFORMANCE TASKS | CURRICULUM EMBEDDED PERFORMANCE ASSESSMENT (PERFORMANCE TASKS): | | | |
| | Given an element symbol, identify the element name. | | | |
| | Given an element name, write the element symbol. | | | |
| | Use the periodic table to determine the number of protons, neutrons, and electrons that make up atoms of different elements. | | | |
| | Using chemical formulas, classify minerals into their various types based on the elements contain in them and what they are bonded to. | | | |
| CLAIMS | <u>CLAIM 1</u> | <u>CLAIM 2</u> | <u>CLAIM 3</u> | <u>CLAIM 4</u> |
| DEPTH OF KNOWLEDGE LEVELS | <u>DOK 1</u> | <u>DOK2</u> | <u>DOK 3</u> | <u>DOK4</u> |
| ACHIEVEMENT LEVEL DESCRIPTORS | <u>ALD 1</u> | <u>ALD 2</u> | <u>ALD 3</u> | <u>ALD 4</u> |

| Stage 3 – Learning Plan |
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| Notes/discussion on matter in all its forms, elements, compounds, mixtures, chemical formulas, composition of earth materials. |
| Elements list of common elements in the crust. |
| Make up of different atoms chart. |
| Identifying Mineral Types based on composition. |