

# RCS High School Science Unit Plans

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**Subject: Earth Science      Unit: Lithosphere      # of Days 14**

Essential Standards: 2.1      Clarifying Objective(s): 2.1.1, 2.1.2, 2.1.3, 2.1.4

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| <p>Big Ideas in NOUNS and ADJECTIVES (Vocabulary)<br/>         Rock Cycle: Igneous, sedimentary, metamorphic, magma, lava, asthenosphere, crust, core, lithosphere, weathering, layers<br/>         Plate Tectonics: convergent, divergent, transform, volcanism, earthquakes, faults, convection, mantle, trench, ridge, seafloor spreading, magnetometer, sonar, Pangaea, Appalachain mountains, subduction, mantle convection, ridge push, gravity pull<br/>         Earthquakes/Volcanoes: focus, epicenter, seismograph, P waves, S waves, Ring of Fire, Richter, Moment-Magnitude, Mercalli, strike slip, normal, reverse, tsunamis<br/>         Weathering/erosion: silt, sand, clay, chemical weathering, physical weathering, climatic effects, topographical effects, soil, landslides, mudslides, avalanche, glaciers</p> | <p>Real World Performance in VERBS<br/>         (RC): Explain, predict, model<br/>         (T): infer, compare, contrast, explain, predict, identify, draw<br/>         (E&amp;V): compare, contrast, infer, describe, locate, predict, analyze, shake<br/>         (W&amp;E): observe, compare, contrast, predict, analyze, explain</p>  |
| <p>Understanding(s):<br/>         Rock cycle, plate tectonics, volcanoes, earthquakes<br/>         Locations of volcanoes, earthquakes , faults<br/>         Weathering, erosion, mass movements, soil<br/>         Geohazards</p>   | <p>I Can ...<br/>         Explain the rock cycle.<br/>         Explain how tectonics relates to the rock cycle.<br/>         Distinguish between the 3 types of plate boundaries.<br/>         Explain how convection currents drive plate tectonics (continental drift &amp; seafloor spreading).<br/>         Explain the geologic feature associated with each type of plate boundary.<br/>         Compare and contrast magma and lava.<br/>         Predict the locations of earthquakes, volcanoes, and faults.<br/>         Explain the relationship between faults and earthquakes.<br/>         Locate the focus/epicenter of an earthquake.<br/>         Relate the P and S waves, magnitude, and energy released.<br/>         Differentiate between chemical and physical weathering.<br/>         Compare and contrast sand, silt, clay.<br/>         Explain the components of soil.<br/>         Explain how mass movements occur.<br/>         Explain the effects of topography, climate, and rock composition on weathering.<br/>         Explain the difference between weathering and</p> |

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|   | erosion.  |
| <p>Performance Task Ideas/Activities:</p> <p>See LiveBinder</p> | <p>Websites:</p> <p>See LiveBinder</p>  |
| Literacy Shift Ideas: (Reading/writing)                         | <p>21<sup>st</sup> Century Themes</p> <ul style="list-style-type: none"> <li>○ <b>Global Awareness</b></li> <li>○ Financial, Economic, Business &amp; Entrepreneurial Literacy</li> <li>○ Civic Literacy</li> <li>○ Health Literacy</li> <li>○ <b>Environmental Literacy</b></li> </ul> |
| Assessments   | <p>Additional Info:</p> <p>1 day: Rock Cycle</p> <p>11 days: Plate Tectonics and Earthquakes/volcanoes</p> <p>3 days: Weathering and Erosion</p>  |