

| Back to Index   | Science Level 1   |   | Skills | Analytical | Contextual |
|---|---|---|--------|------------|------------|
| <b>Astronomy</b>  |   | <b>INTRO TO EARTH SCIENCE &amp; PHYSICS</b> |        |            |            |
| SC.AS.01.01.02  | Compares and contrasts characteristics of planets and stars with regard to light reflecting, light emitting, orbiting, and composition  |   |        |            |            |
| SC.AS.01.02.02  | Uses light-years to describe distances between objects in the universe and compares the brightness of a star to its distance and size   |   |        |            |            |
| SC.AS.01.03.02  | Creates a model of the solar system illustrating size, location/position, composition, moons/rings, and conditions.   |   |        |            |            |
| <b>Climate, Weather and Water</b>                                       |   |   |        |            |            |
| SC.CW.01.01.02  | Describes the weather using accepted meteorological terms, such as pressure systems, fronts, and precipitation  |   |        |            |            |
| SC.CW.01.02.02  | Recognizes the relationship between the seasons and Earth's tilt relative to the sun and describes the day/night cycle as caused by the rotation of the Earth every 24 hours  |   |        |            |            |
| SC.CW.01.03.02  | Recognizes the relationship between phase changes (sublimation, condensation, evaporation) and energy transfer (convection, conduction, and radiation), and the affect on weather   |   |        |            |            |
| <b>Energy can be transformed, transferred, and conserved</b>            |   |   |        |            |            |
| SC.EN.01.01.02  | Explains that energy (i.e. heat, light, chemical, electrical, mechanical) can change form   |   |        |            |            |
| SC.EN.01.02.02  | Identifies the initial source and resulting change in forms of energy in common phenomena (e.g. sun to tree to wood to stove to cabin heat)   |   |        |            |            |
| <b>Forces that shape the Earth</b>                                      |   |   |        |            |            |
| SC.FE.01.01.02  | Identifies strategies for minimizing erosion, such as reforestation, dikes, wind breaks, and off road activity guidelines.  |   |        |            |            |
| SC.FE.01.02.02  | Interprets topographical maps to identify features, such as mountains, lakes, tundra, permafrost, and describes how the movement of the tectonic plates results in both slow changes (formation of mountains, ocean floors, and basins) and short-term events (volcanic eruptions, seismic waves, and earthquakes) on the surface |   |        |            |            |
| SC.FE.01.03.02  | Uses models to show the relationship between convection currents within the mantle and the large-scale movement of the surface  |   |        |            |            |
| <b>Force, motion, their characteristics, relationships, and effects</b> |   |   |        |            |            |
| SC.FM.01.01.01  | Describes Newton's laws of motion and illustrates unbalanced forces will cause an object to accelerate  |   |        |            |            |
| SC.FM.01.02.01  | Recognizes electric currents and magnets can exert a force on each other, and describes the interactions between electrical charges and the interactions between magnetic poles   |   |        |            |            |
| SC.FM.01.03.01  | Describes the characteristics of a wave in terms of amplitude, wavelength, and frequency  |   |        |            |            |

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| SC.FM.01.04.01            | Demonstrates and explains circular motion  |  |  |  |
| <b>Geochemical Cycles</b> |  |  |  |  |
| SC.GC.01.01.02            | *Describes the rock cycle and its relationship to igneous, metamorphic, and sedimentary rocks<br>*Illustrates and describes mechanism for physical change  |  |  |  |
| SC.GC.01.02.02            | Makes connections between components of the locally observable geologic environment and the rock cycle   |  |  |  |
| SC.GC.01.03.02            | Illustrates the water cycle and applies knowledge of the water cycle to explain changes in the Earth's surface   |  |  |  |
| <b>Scientific Process</b> |  |  |  |  |
| SC.SP.01.01.02            | Asks testable questions  |  |  |  |
| SC.SP.01.02.02            | Predict outcome and develop a hypothesis based on a testable question  |  |  |  |
| SC.SP.01.03.02            | Collaborate to design and conduct simple repeatable investigations   |  |  |  |
| SC.SP.01.04.02            | Collect and record data using appropriate tools, include measurements, observations, descriptions, and classifications when appropriate  |  |  |  |
| SC.SP.01.05.02            | Analyze data for range, mean, median, and mode   |  |  |  |
| SC.SP.01.06.02            | Interpret data and make conclusions with reference to hypothesis   |  |  |  |
| SC.SP.01.07.02            | Communicate experimental findings and explains differences in results of repeated experiments  |  |  |  |
| SC.SP.01.08.02            | Identify and evaluate the sources used to support scientific statements and revises a personal idea when presented with data inconsistent with that personal idea (e.g. rates of falling bodies of different masses) |  |  |  |
| SC.SP.01.09.02            | Design and conduct a simple investigation about the local environment  |  |  |  |
| SC.SP.01.10.02            | Investigates the basis of local knowledge (e.g. describing and predicting weather) and shares that information   |  |  |  |
| SC.SP.01.11.02            | Compares own work to the work of peers in order to identify multiple paths used to investigate and evaluate potential solutions to a question or problem   |  |  |  |
| SC.SP.01.12.02            | Describes how public policy affects own life using scientific knowledge and technology   |  |  |  |
| SC.SP.01.13.02            | Recognizes the effects on our lives and society of a past scientific discovery, invention or scientific breakthrough (space discovery, DDT, internal combustion engine)  |  |  |  |