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| M. Angileri ♣  3-5-18 | **6th grade science** | | **18-19 3-11-19 Materials Matter #1** | | | | | |
| NGSS Standard | **MS-ESS2-2**  **DCI**  S & E practices  CCC | | The student is expected to construct an explanation based on evidence for how geoscience processes have changed Earth’s surface at varying time and spatial scales.  The planet’s systems interact over scales that range from microscopic to global in size, and they operate over fractions of a second to billions of years. These interactions have shaped Earth’s history and will determine its future. Water’s movements—both on the land and underground—cause weathering and erosion, which change the land’s surface features and create underground formations.  Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students’ own experiments) and the assumption that theories and laws that describe nature operate today as they did in the past and will continue to do so in the future. (MS-ESS2-2)  **Scale Proportion and Quantity** ♣ Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small. (MS-ESS2- 2) | | | | | |
| Camp Week | | **MONDAY** | | **TUESDAY** | **WEDNESDAY** | **THURSDAY** | **FRIDAY** |
| Content Objective: | | SW demonstrate comprehension of how scientist classify rocks by summarizing information using Google Slides. | | SW demonstrate comprehension of how scientist classify rocks by summarizing information using Google Slides. | SW demonstrate comprehension of how scientist classify rocks by summarizing information using Google Slides. | SW demonstrate analysis of how geoscience processes have changed Earth’s surface at varying time and spatial scales by completing the cause and effect chart. | SW demonstrate application of how geoscience processes have changed Earth’s surface by carrying out an investigation. |
| Language objective | | SW write to summarize how geoscience processes have formed rocks using sentence frames. | | SW write to summarize how geoscience processes have formed rocks using sentence frames. | SW write to summarize how geoscience processes have formed rocks using sentence frames. | SW write to explain the geoscience processes that create Rocks using content specific vocabulary. | SW write to make connections among rock formation and the cycling of matter using complete sentences. |
| Classwork: | | Investigate Phenomena (KWL)  Introduce Rock Types in google classroom | | APK: Cycle Brainstorm  Continue Rock Type assignment | Final Day  Rock Type assignment  Linking Literacy Prereading activity | HOOK: Rocks are classy  Scopepedia Article  L.L. Cause and Effect | Rock Cycle Activity |

Essential Question: When you drive on a road carved through a mountain, why do the walls of the mountain look striped?

Vocabulary:

Energy: The ability of a system to do work. Energy is required for changes to happen within a system.

Matter: Anything that has mass and takes up space.

Organism: A single, self-contained living thing.

Nutrient Cycle: Cycling of organic and inorganic matter through living organisms and the environment.

Water Cycle: The constant movement of water through the land, air, oceans, and living things.

Rock Cycle: The continual formation of igneous rock (cooled magma), sedimentary rock (cemented and compacted sediments), and metamorphic rock (rocks changed from heat and pressure), and the change from one rock type to another

Carbon-Oxygen Cycle: The continual process of plants using carbon dioxide for photosynthesis to make plant food and release oxygen; living things use oxygen for cellular respiration which releases carbon dioxide and continues the cycle.

Carbon Cycle: The continuous movement of carbon among the abiotic environment and living things.

Nitrogen Cycle: The continual movement of nitrogen from the air to the soil, into living things, and back into the air

Igneous Rock: is formed when lava or magma cools and solidifies. Lava cools quickly and forms rocks with small crystals, while magma cools more slowly and forms rocks with larger crystals.

Metamorphic Rock: is formed deep underground where heat and pressure cause existing rocks to be changed in both mineral composition and structural characteristics.

Sedimentary Rock: forms when particles of other rocks are deposited in layers and are compacted (crushed together), and cemented (binding of the sediments).

Earth Systems: Four interacting systems that make up our planet: atmosphere (air surrounding Earth), geosphere (all solid and molten rocks, soil, and sediments), hydrosphere (all bodies of water), and biosphere (all living things)