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| **Angileri 6th Science 10-10-16** | **Monday** | **Tuesday** | **Wednesday**  **Substitute** | **Thursday** | **Friday**  **Substitute PM** |
| GLCE | E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils. | E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils. | E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils. | E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils. | E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils. |
| CONTENT  OBJECTIVE: | SW demonstrate evaluation of physical and chemical weathering by conducting an experiments and then summarizing key elements of weathering in a type 3 writing | SW demonstrate evaluation of factors that affect chemical weathering by conducting an experiments and then summarizing key elements of weathering by answering follow up questions | SW demonstrate analysis of how physical and chemical weathering affect the shape of rocks by finding connections among classroom activities | SW demonstrate comprehension of how physical and chemical weathering affects rocks by summarizing weathering in a Collin’s Type 3 writing. | SW demonstrate knowledge of physical and chemical weathering vocabulary by defining the terms in their science dictionary. |
| LANGUAGE OBJECTIVE: | SW write to distinguish between physical and chemical weathering after conducting an experiment. | SW write to distinguish the effects of chemical weathering after conducting an experiment. | Students will write to describe how physical and chemical weathering affect the shape of rocks by answering questions. | Students will write to explain how physical and chemical weathering affects rocks by using content specific vocabulary. | Students will orally make connections between physical and chemical weathering as it relates to classroom concepts |
| ACADEMIC VOCABULARY | Review week 1 and 2 vocabulary | Retakes before or after school | Retakes before or after school | Retakes before or after school | Introduce week 3 terms  Identify terms in science dictionary |
| CONTENT VOCABULARY | Mechanical Weathering  Abrasion  Ice Wedging | Chemical Weathering  Oxidation  Dissolve | Weathering  Erosion  Permeable | Repeat | repeat |
| IN CLASS TODAY: | Analyze Graph p.44  Experiment: How does Temperature affect the rate of weathering?  Collin’s Type 3 writing  Homework: Neighborhood weathering--Due Wednesday | Article: Do Rocks Last Forever?  Read and discuss  Chemical Weathering: A Sour Trick | Rock Shake and Steel Wool Demonstrations/  Analysis  Worksheet: Why are many stones round? | QUIZ: weathering  Collin’s Type 3 writing | Enter Weathering vocabulary into dictionary.  Read: Earth’s Changing Surface p. 66-69 |
| Target Learning | I can describe the types of weathering in the chalk experiment and the effect temperature has on chemical reactions. | I can describe the effects of chemical weathering on rock using details from the experiment. | I can describe the effects of chemical and physical weathering on rocks. | I can demonstrate what I have learned about weathering using multiple choice questions and the Collin’s writing how physical and chemical weathering format | I can define vocabulary terms in my science dictionary |
| Essential Question | What factors caused the chalk to weather and what increase the rate of weathering? | Do all rocks weather chemically in the same way? | What causes rocks to change in shape and size? | How does weathering change rock? | What does \_\_\_\_\_\_\_\_\_\_\_\_\_ mean? |

**WEEK ONE**

**Scientific Method**: A logical step by step way of solving a problem in science.

**Purpose:** a reason for doing something or existing.

**Procedure**: a series of steps in a definite order, showing how something is done.

**Research**: the collecting of information about a particular subject.

**Experiment** – scientific investigation performed to answer a question or solve a problem.

**Hypothesis**: an educated guess.

**Demonstrate**: to show or prove something clearly by showing examples or evidence.

**WEEK TWO**

**Design**: to plan or show how something will look or work.

**Variables**: one of the factors in an experiment that may or may not change

**Constant**: a factor in an experiment that does not change or vary

**Control**: something you already know the result for, used in a scientific test, shows the method is working.

**Visible:** able to be seen by the eye.

**Additive:** a substance added in small amounts to something to improve, strengthen, or change it.

**Factors**: an influence that contributes to a result or outcome.

**Yield**: to resist or hold off.

**WEEK THREE**

**Journal**: a record of experiences, ideas, or events.

**Data**: a group of measurements, facts, or statistics recorded about an experiment

**Conclusion**: the last part of an experiment where the findings are summarized

**Evidence**: facts that show clearly that something is true.

**Analysis**: detailed examination of the elements or structure of something.

**Evaluation**: (evaluate) a judgment about how good, useful, or successful something is.

**Resources**: a source of information, or a supply of something useful.

**Weathering Vocabulary** Content Vocabulary

**Weathering** -- The natural process by which atmospheric and environmental agents, such as wind, rain, and temperature changes disintegrate and decompose rocks.

**Erosion** -- The process by which wind, water, ice, or gravity moves or transports soil and sediment from one location to another.

**Physical (Mechanical) weathering** -- The mechanical breakdown of rocks into smaller pieces that is caused by natural processes and does not change the chemical composition of the rock material.

**abrasion** -- The process by which a rock is reduced in size by scraping action of other rocks driven by water, wind, and gravity.

**ice wedging**—Process that splits rock when water seeps into cracks, then freezes and expands.

**chemical weathering**—The chemical breakdown and decomposition of rocks by natural processes in the environment.

**oxidation --** A chemical reaction in which a material combines with oxygen to form a new material.

**permeable—**Characteristic of a material that is full of tiny connected air spaces that water can seep through.

**Acid precipitation—**rain, sleet, or snow that contains high concentration of acids.

**Terms that may need additional explanation**

Content Vocabulary

**Weathering** -- The chemical and physical processes that break down rock at Earth’s surface.

**Erosion** -- The process by which water, ice , wind, or gravity moves weathered rock and soil.

**Mechanical weathering** -- The type of weathering in which rock is physically broken into smaller pieces.

**abrasion** -- The grinding away of rock by other rock particles carried in water, ice, or wind.

**ice wedging**-- Process that splits rock when water seeps into cracks, then freezes and expands.

**chemical weathering**-- The process that breaks down rock through chemical changes.

**oxidation --** A chemical change in which a substance combines with oxygen, as when iron oxidizes, forming rust.

**permeable—**Characteristic of a material that is full of tiny connected air spaces that water can seep through.

Content Vocabulary

Abrasion—The grinding away of rock by other rock particles carried in water, ice, or wind.

Beach— Wave-washed sediment along a coast.

Deflation—Wind erosion that removes surface materials.

Deposition—Process in which sediment is laid down in new locations.

Energy—The ability to do work or cause change.

Erosion—The process by which water, ice, wind, or gravity moves weathered rock and soil.

Friction--The force that opposes the motion of one surface across another surface.

Glacier—A large mass of moving ice and snow on land.

Gravity—A force that moves rocks and other materials downhill.

Load—The amount of sediment that a river or stream carries.

Loess—A wind-formed deposit made of fine particles of clay and silt.

Plucking—The process by which a glacier picks up rocks as it flows over land

Runoff—Water that flows over the ground surface rather than soaking into the ground.

Sand dune A deposit of wind-blown sand.

Sediment--Earth materials deposited by erosion.

Till—The sediments deposited by a glacier.