

ROCKS & ROCK CYCLE

Interactive Notebook

ANSWER KEY INCLUDED!



STEM ACTIVITY INCLUDED

The Rock Cycle

Interactive Science Notebook



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EARTH SCIENCE

This resource is part of...

Earth Science

Complete Curriculum

Contains:

INTERACTIVE POWERPOINT SERIES

INTERACTIVE NOTEBOOK SERIES

Earth Science STEM Projects

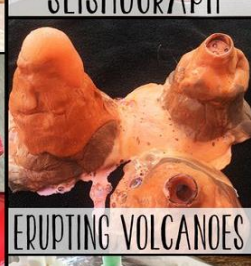
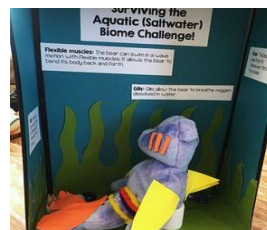
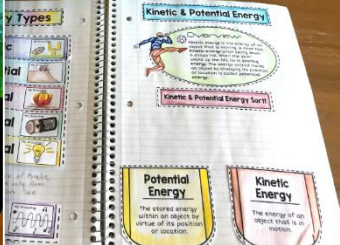
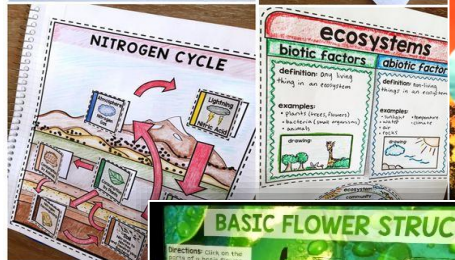
Earth Science Assessments

Earth Science Google Projects

EARTH SCIENCE
COMPLETE CURRICULUM

BUNDLED RESOURCE

STEM • INTERACTIVE NOTEBOOKS
POWERPOINTS • GOOGLE CLASSROOM • EXAMS
ROCK CYCLE • MINERALS • PLATE TECTONICS • VOLCANOES • WEATHER
ECOSYSTEMS • EARTH'S CYCLES • PHOTOSYNTHESIS • BIOMES • ENERGY



How To Use

Directions for the Teacher:

Have your students use the following pages to create their very own science interactive notebook!

Each page will have different cutouts. Have students read the instructions on each page and use the dotted lines to help them know which pieces to cut and place in their notebook. It's that easy!

Page 7 is the student cover of the unit.

Towards the end of the resource, you will find the answer key pages. Feel free to use them as a guide with your students.

Enjoy!

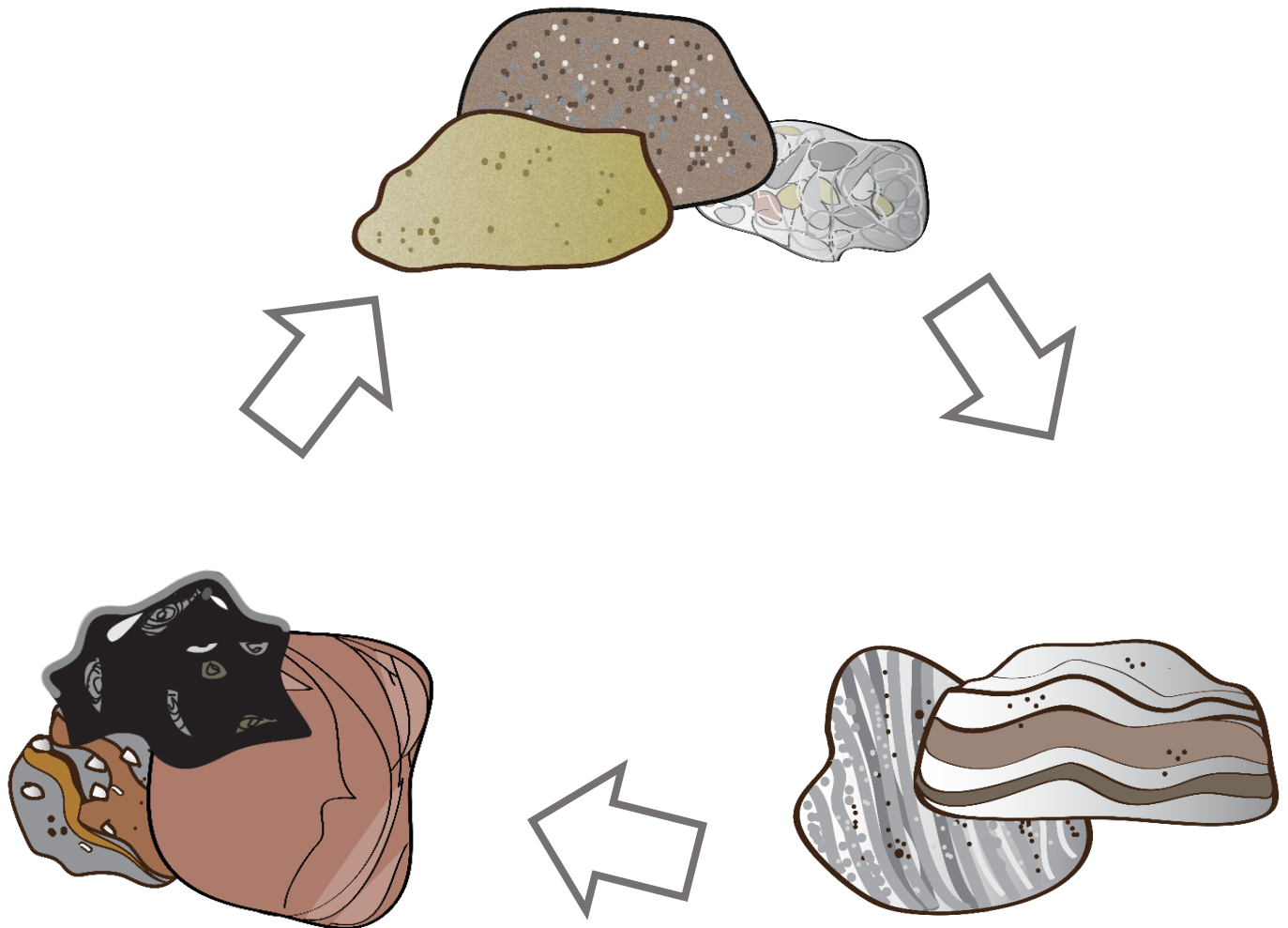
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Science

Interactive Notebook

THE ROCK CYCLE



NAME: _____

POWER WORDS!

Directions: These are words you'll be reading and defining throughout this unit. Come back to this page when you discover the definition and write it below!

Cut out each flap and glue at the top. Write the definition underneath the flap!

**igneous
rocks**

**sedimentary
rocks**

**metamorphic
rocks**

weathering

erosion

deposition

rock cycle

magma

crystallizing

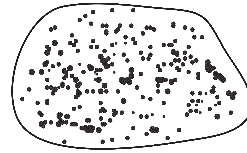
basalt

sediments

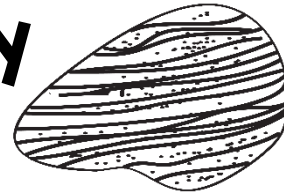
**fossil
fuels**

Rock Types

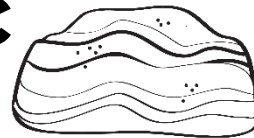
igneous rocks



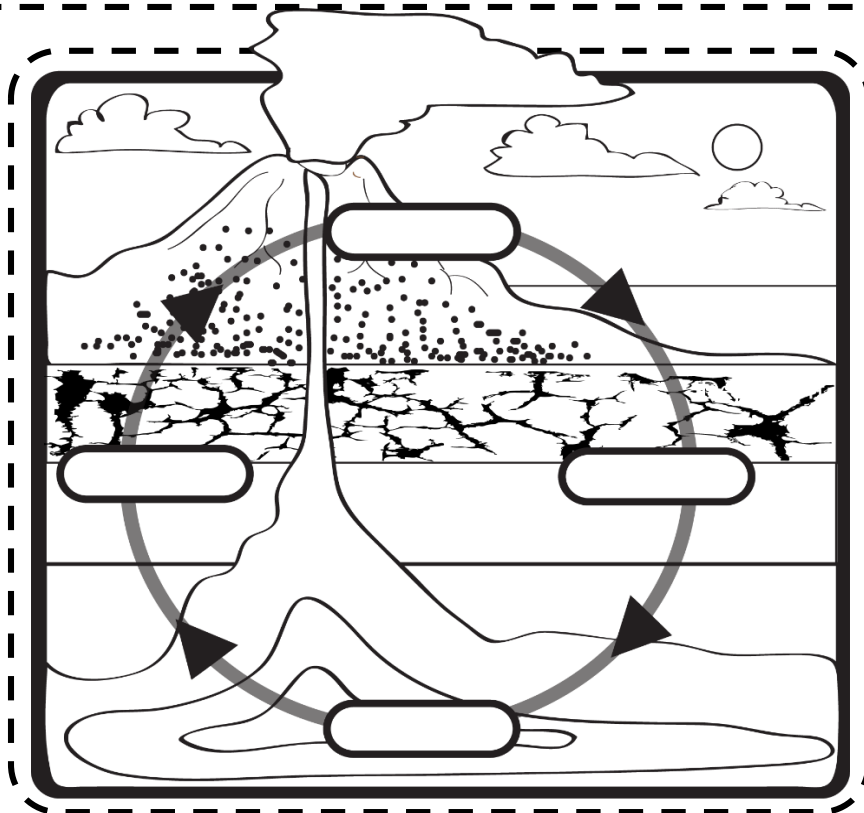
sedimentary rocks



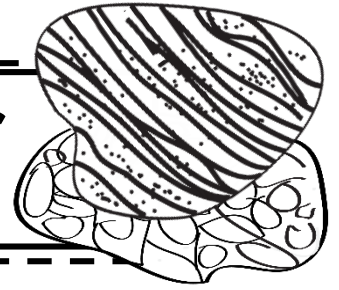
metamorphic rocks



Rock Cycle



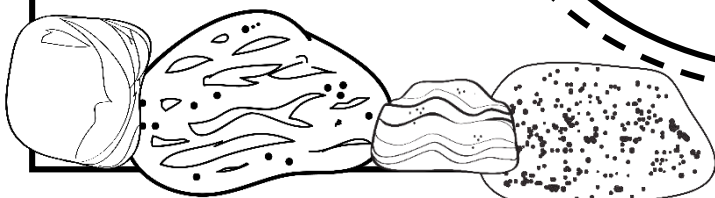
What Causes Changes in our Landscape



Weathering

Erosion

Deposition

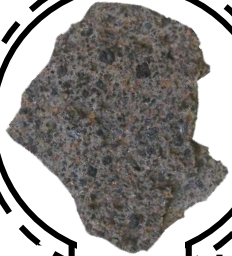


Rock-Type Strips

Directions: Cut out the rock strips and place them in the correct pockets!



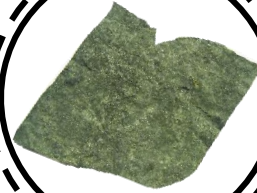
limestone



basalt



granite



slate



sandstone



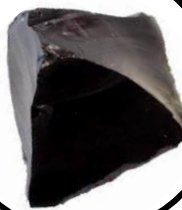
gneiss



marble



shale



obsidian



rock salt



Rock Type Pockets!



igneous rocks

Igneous rocks are formed from the heating and cooling of magma or lava

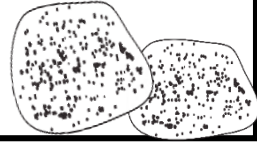
sedimentary rocks

Sedimentary rocks are made from other materials like sand or shells. The layers gather and over time, turn into rock.

metamorphic rocks

Rocks that have been changed over time by heat or pressure, used to be igneous or sedimentary.

Igneous Rocks



Examples of
How They
Are Formed

Characteristics of
Igneous
Rocks

Examples
of Igneous
Rocks

Intrusive
Rocks

Extrusive
Rocks

Sedimentary Rocks



Examples of
How They
Are Formed

Characteristics of
Sedimentary
Rocks

Examples
of Sedimentary
Rocks

Metamorphic Rocks



Examples of
How They
Are Formed

Characteristics of
Metamorphic
Rocks

Examples
of
Metamorphic
Rocks

STEM ACTIVITY

Using Crayons to Create the Rock Cycle!

Supplies:

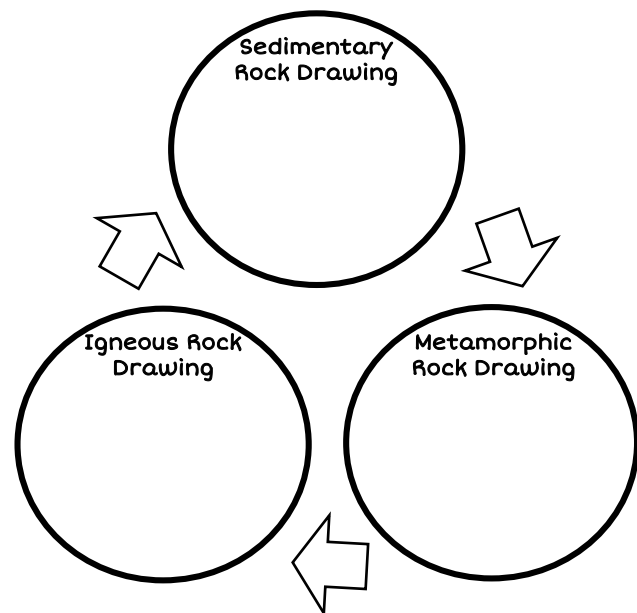
- different colored crayons
- scraper tool or pencil sharpener
- foil
- a bowl of hot/boiling water
- paper plates

Directions: In groups of 2-4 students, create the rock cycle using the supplies above! Consider the **rock cycle process** and think about the events that occur during each stage. How are igneous, sedimentary, and metamorphic rocks formed? What could you do to the rock to represent **weathering** and **erosion**? What about **compacting** and **cementing** using **heat** and **pressure**? Utilize the materials and brainstorm how you can use crayons to create the rock cycle process.

Sedimentary Rock Notes:

Metamorphic Rock Notes:

Igneous Rock Notes:

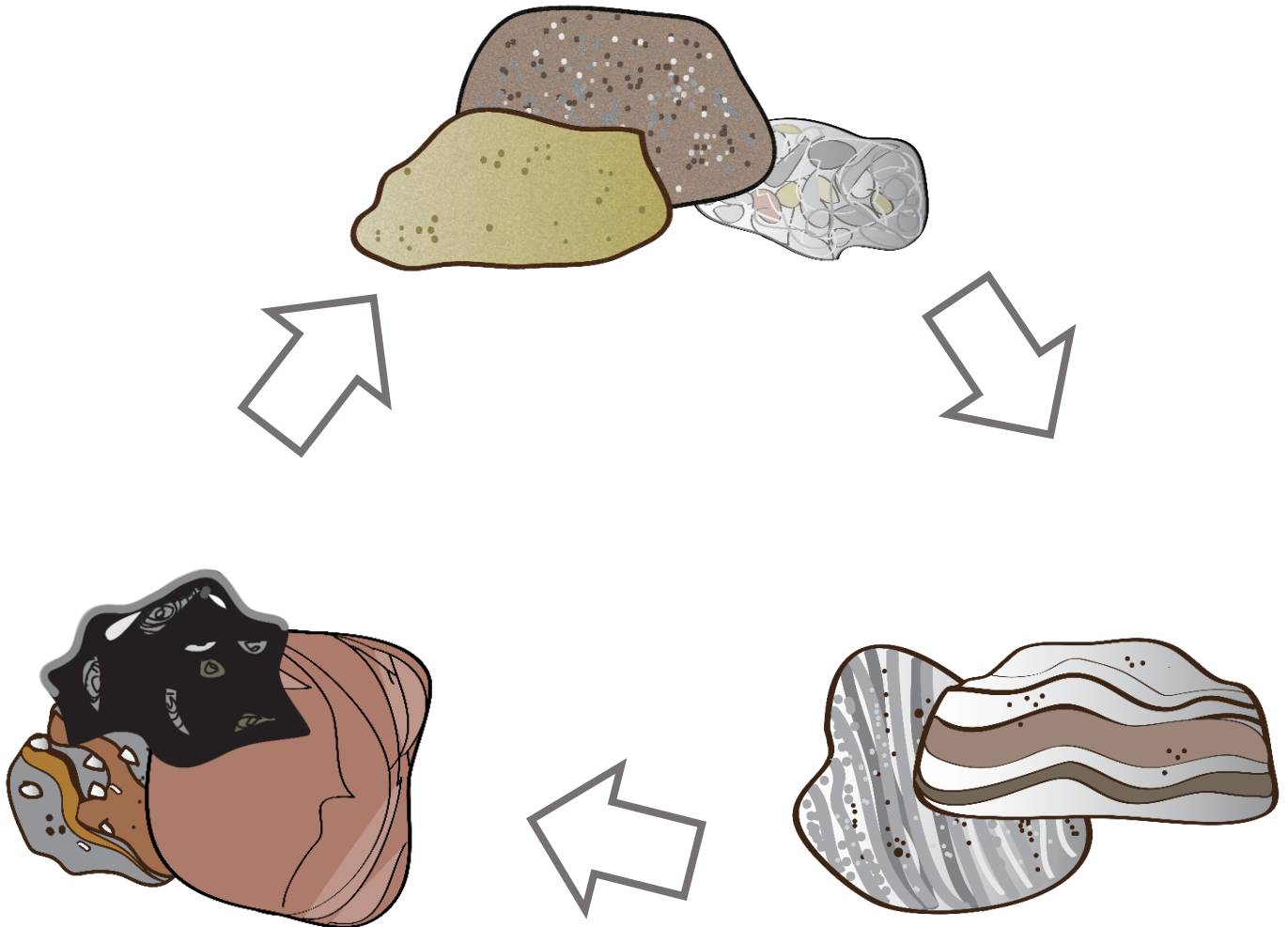


ANSWER KEY

Science

Interactive Notebook

THE ROCK CYCLE



NAME: _____

POWER WORDS!

Directions: These are words you'll be reading and defining throughout this unit. Come back to this page when you discover the definition and write it below!

Cut out each flap and glue at the top. Write the definition underneath the flap!

igneous rocks

One of the three main rock types, formed from heating and cooling of magma/lava.

sedimentary rocks

One of the three main rock types, made from pieces of other rocks. They are formed by the deposition and cementation of that material at the Earth's surface and within bodies of water.

metamorphic rocks

One of the three main rock types. Metamorphic rocks were once igneous or sedimentary and have changed from high temperatures and pressure.

weathering

The breaking down of rocks, soil, and minerals due to the weather. Freezing temperature, water, acid, or rain can affect landscapes.

erosion

Water, wind, or ice that moves sediments from one location and transports it to another.

deposition

Sediments or earth materials deposited in a new location.

rock cycle

A process where rocks change over time from igneous to sedimentary to metamorphic. Weathering, erosion, deposition, heat and pressure create those changes.

magma

Mixture of molten or semi-molten rock that can be found underneath the surface of the earth.

crystallizing

Melting and crystallization occurs in the process of creating igneous rocks. A process where a solid forms where atoms are highly organized in a crystal.

basalt

An igneous rock formed from the cooling of lava or magma.

sediments

Material that comes from the weathering of rock and is carried and deposited by wind, water, or ice.

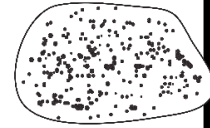
fossil fuels

A natural fuel (like coal or gas). They are the remains of organisms that lived a very long time ago.

Answer Key Rock Types

igneous rocks

One of the three main rock types, formed from heating and cooling of magma/lava.



sedimentary rocks

One of the three main rock types, made from pieces of other rocks. They are formed by the deposition and cementation of that material at the Earth's surface and within bodies of water.

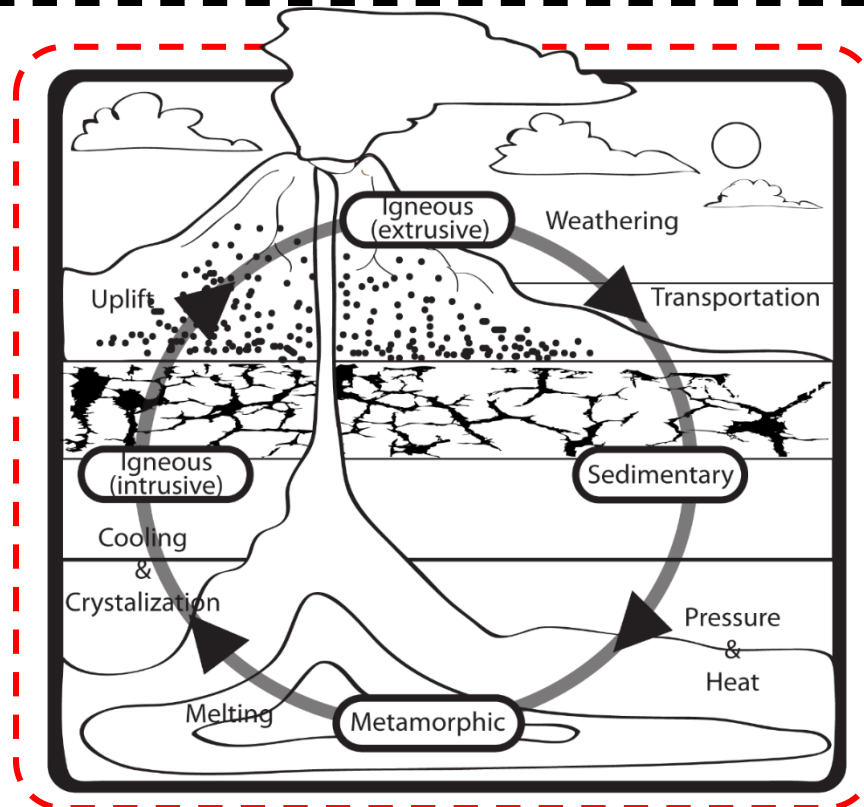


metamorphic rocks

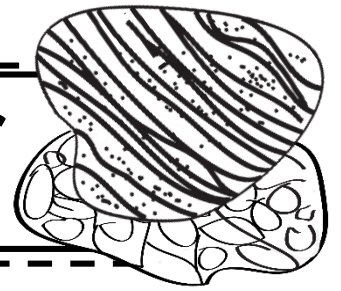
One of the three main rock types. Metamorphic rocks were once igneous or sedimentary and have changed from high temperatures and pressure.



Rock Cycle



What Causes Changes in our Landscape



Weathering

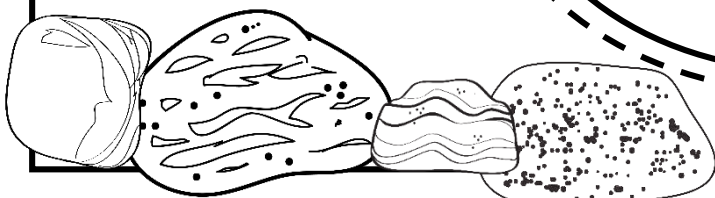
The breaking down of rocks and minerals from wind, acids, (chemical weathering), salt, water, or temperature.

Erosion

Water, ice, or wind transplants pieces of rock or minerals.

Deposition

When water, ice, or wind (an agent of erosion) deposits the rock or earth material. This mostly occurs in water.



Rock-Type Strips

Directions: Cut out the rock strips and place them in the correct pockets!



sedimentary

limestone



igneous

basalt



igneous

granite



metamorphic

slate



sedimentary

sandstone



metamorphic

gneiss



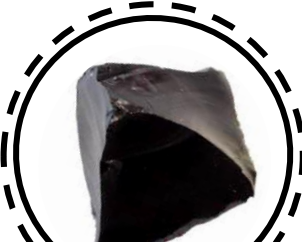
metamorphic

marble



sedimentary

shale



igneous

obsidian



sedimentary

rock salt



Rock Type Pockets!



igneous rocks

Igneous rocks are formed from the heating and cooling of magma or lava

ANSWERS
(correct sticks):



granite
basalt
obsidian

sedimentary rocks

Sedimentary rocks are made from other materials like sand or shells. The layers gather and over time, turn into rock.

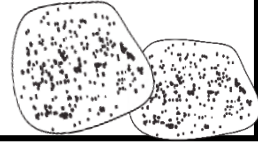
sandstone
limestone
shale
rock salt

metamorphic rocks

Rocks that have been changed over time by heat or pressure, used to be igneous or sedimentary.

slate
gneiss
marble

Igneous Rocks



Examples of How They Are Formed

Igneous rocks are formed when magma inside the earth's crust cools and hardens.

Characteristics of Igneous Rocks

- a shiny or glassy surface
- contains interlocking crystals
- source of magma/lava
- no fossils
- gas pockets (some)

Examples of Igneous Rocks

- basalt
- granite
- obsidian
- pumice

Intrusive Rocks

Igneous rocks that are created **below** the earth's surface. (ex: granite, peridotite, gabbro)

Extrusive Rocks

Igneous rocks that are created **on/above** the earth's surface. (ex: basalt, rhyolite, andesite, obsidian)

Sedimentary Rocks



Examples of How They Are Formed

Weathering (rain, freezing temperatures, etc.) causes rock to break down into sediments. During erosion, the sediments are moved to different locations. Then the sediments are deposited in layers, becoming compressed and buried. They cement together to form sedimentary rocks.

Characteristics of Sedimentary Rocks

- may contain fossil organisms
- has sedimentary layers from deposition
- more porous and less dense
- fine grains

Examples of Sedimentary Rocks

- limestone
- fossils (can be found in sedimentary rocks)
- sandstone
- clay
- shale

Metamorphic Rocks



Examples of How They Are Formed

Metamorphic rocks were once either sedimentary or igneous rocks. They were exposed to high heat or pressure (or both), changing (morphing) over time.

Characteristics of Metamorphic Rocks

- rarely has pores or holes
- rarely has fossils
- foliated textures with bands of light and dark rock
- non-foliated metamorphic rocks do not have bands

Examples of Metamorphic Rocks

- slate
- marble
- gneiss
- schist

STEM ACTIVITY

Using Crayons to Create the Rock Cycle!

Supplies:

- different colored crayons
- scraper tool or pencil sharpener
- foil
- a bowl of hot/boiling water
- paper plates

Directions: In groups of 2-4 students, create the rock cycle using the supplies above! Consider the **rock cycle process** and think about the events that occur during each stage. How are igneous, sedimentary, and metamorphic rocks formed? What could you do to the rock to represent **weathering** and **erosion**? What about **compacting** and **cementing** using **heat** and **pressure**? Utilize the materials and brainstorm how you can use crayons to create the rock cycle process.

Sedimentary Rock Notes:

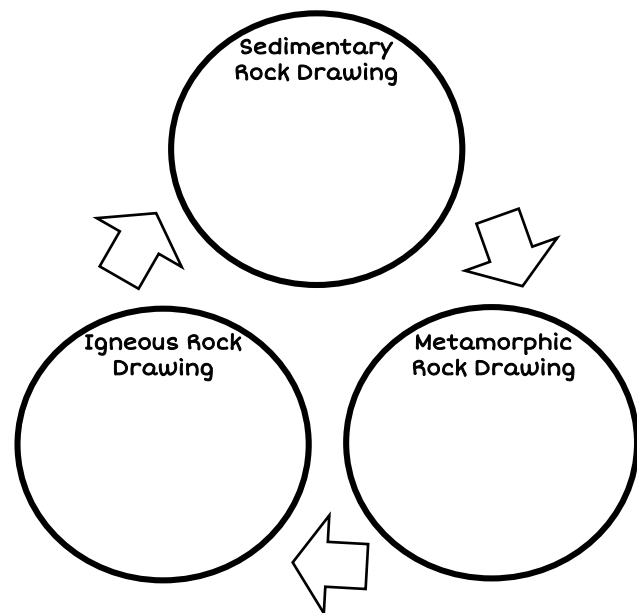
These rocks are formed from tiny sediments and particles. We replicated erosion and weathering by shaving the crayons with a scraper tool or pencil sharpener. We used different colors to represent rock layers. We formed the layers together by wrapping it with foil and pressing.

Metamorphic Rock Notes:

Metamorphic rocks used to be a different rock type. We used the sedimentary rock and applied heat and pressure. We placed the wrapped foil with the sedimentary rock inside of the bowl with hot water. We took it out after a minute and watched it cool.

Igneous Rock Notes:

When the Metamorphic rock became cooled and solidified (the water representing hot lava or magma), it made a hard igneous rock.



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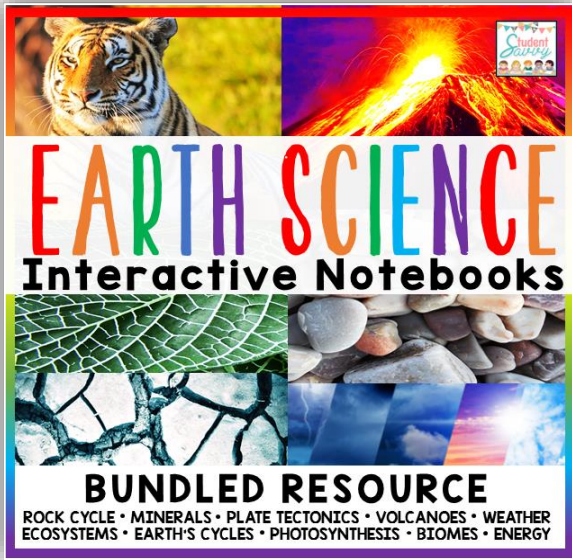
EARTH SCIENCE

INTERACTIVE NOTEBOOKS & POWERPOINTS

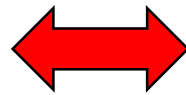
Interactive
Notebook Series

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the resource!

Interactive
PowerPoint Series



ALIGNED
WITH...

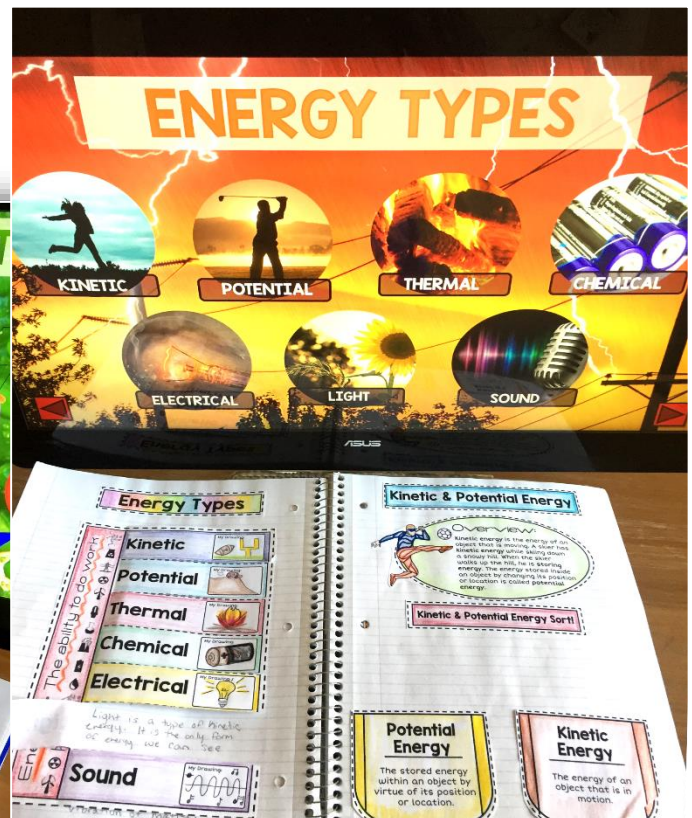


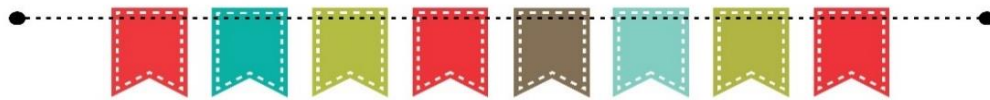
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- Minerals & Gems
- Plate Tectonics
- Volcanoes
- Weather
- Ecosystems
- Earth's Cycles
- Photosynthesis
- Biomes
- Energy





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Interactive Notebook
ANSWER KEY INCLUDED!
STEM ACTIVITY • NGSS ALIGNED

VOLCANOES
Interactive Notebook
ANSWER KEY INCLUDED!
STEM ACTIVITY INCLUDED

sick?
worry-free
NO PREP!
sub plans

Trading Cards
Animals • Biomes • Adaptations

music exploration
in the classroom!
music genres
HISTORY • SOUND CLIPS • ACTIVITIES • ART • CREATIVE FUN

"I'm done!"
? "What do I do now?!" ?
Write a sensory poem. What do you see, hear, smell, feel, taste at this moment? Make a poem about it.
The Best Bored Busters!

