

Mrs. Loudin's 7th and 8th Grade Science Checklist for April Assignments

NOTE: These assignments are for students who do not have internet/computer access or who prefer a hard copy. Any student who has internet access may choose to do the assignments (on the same topics) listed weekly on LiveGrades.

Wednesday, April 15, 2020

Fossils:

- Fossil Squiggle Infographic Notes/Activity _____

Wednesday, April 22, 2020

Earth Day 2020 Activities:

- Earth Day Background _____
- Earth Day 2020, 50th Anniversary _____
- Earth Day Scramble _____

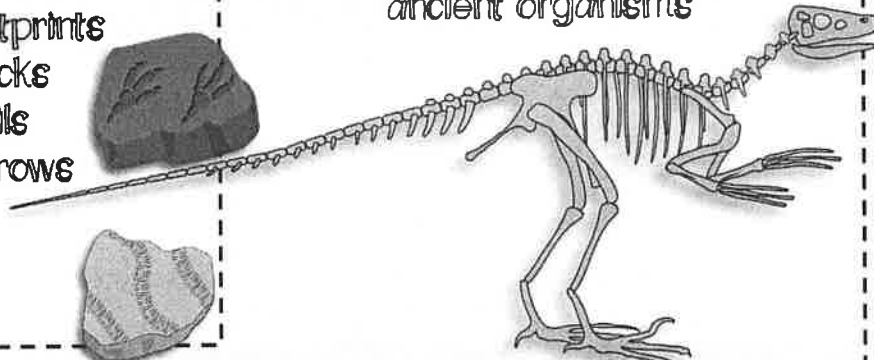
Wednesday, April 29, 2020

Rocks and Minerals Study:

- Minerals/Moh's Hardness School Notes/Activity _____
- The Rock Cycle Infographic Notes and Show What You Know Activity _____

FOSSILS

-remains, impressions, tracks, or other evidence of ancient organisms



TRACE FOSSILS

-any impression or other preserved sign of activity

- Footprints
- Tracks
- Trails
- Burrows



IMPRINTS

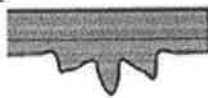
-impressions of parts of organisms left in soil or sediment before it hardens
-thin objects

- Leaves
- Fish
- Feathers



CAST

-a model in the shape of a living thing or its remains
-forms when minerals or rock particles fill the space in a mold



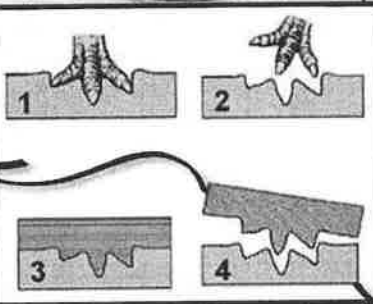
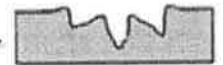
What is coprolite?

Fossilized feces



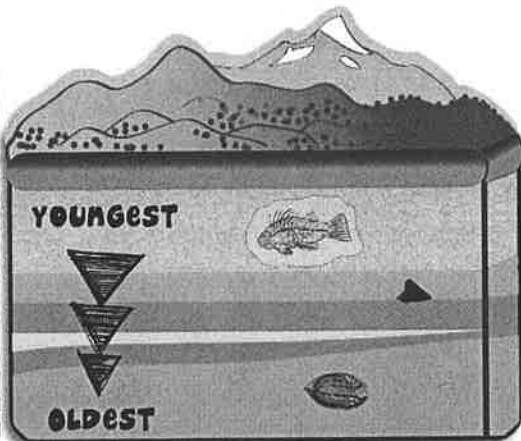
MOLD

-a space in a rock that has the shape of a living thing that once occupied that space



RELATIVE AGE DATING

-way to describe age of one object compared to another
-layers of rock near surface are younger than layers deeper down



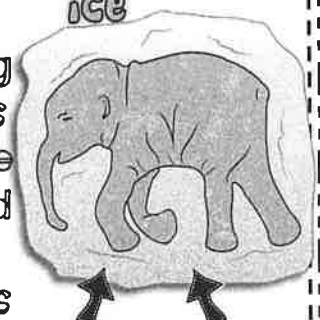
AMBER

-tree sap that hardens and traps both the hard and soft parts of living things



ice

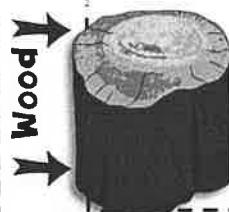
-living things can be buried in layers of ice



Woolly Mammoth

PETRIFIED FOSSIL

-when minerals replace the bone, shell, or other hard parts that was trapped, turning them into rock



Understanding Checkpoint ✓

Fossils



Name _____

Date _____

Period _____

1. Even though cast fossils look like the original bone or shell, they are different because they:
 - a. contain empty space where the organism once was.
 - b. preserve both hard and soft parts of organism.
 - c. are made of rock.
 - d. have skin, hair, feathers...

2. When bones are turned into stone, they are called:
 - a. petrified fossils.
 - b. imprints.
 - c. trace fossils.
 - d. amber fossils.

3. What is the space called when an organism decays inside a rock?
 - a. Mold
 - b. Amber
 - c. Cast
 - d. Coprolite

4. Trace fossils leave evidence of an animal's activity. Which of the following is NOT an example of a trace fossil?

- a. Nests
- b. Tracks
- c. Imprints
- d. Burrows

5. This type of fossil does NOT preserve the animals remains?

- a. Amber
- b. Ice
- c. Imprints
- d. None of these

6. T or F: Fossils are remains of ancient plants and animals.

7. T or F: Molds and casts can fit together like a puzzle.

List the following fossils in order from oldest (1) to youngest (3). Refer to the "Relative Age Dating" section.

8. _____



9. _____



10. _____



name: _____

Did you know? Earth Day Edition



Earth Day is a worldwide event! On Earth Day in 2016 120 countries signed an agreement to enforce active climate protection.

In 1969 activist John McConnell while at a UNESCO conference proposed a day to honor the Earth and peach to be observed on March 21, 1970 - the first day of spring of that year.

United States Senator Gaylord Nelson founded a separate Earth Day on April 22, 1970 as an environmental "teach-in." And was later awarded the Presidential Medal of Freedom in recognition of his work.

.It is said that the name "Earth Day" came from an associate of Senator Nelson's who thought it up because April 22 was his birthday and it rhymed with "Earth Day." John McConnell also claimed ownership of "Earth Day."

The first Earth Day celebrations took place at thousands of colleges, universities, primary and secondary schools and communities. President Nixon and his wife planted a tree on the White House South Lawn to recognize Earth Day.

Denis Hayes (who was on the committee for the original United States Earth Day in 1970) took it international in 1990. There were events in 141 countries!

name: _____

EARTH DAY 2020

This is the 50th anniversary of Earth Day and EarthDay.org has chosen Climate Change as their theme for the year.

“Despite that amazing success and decades of environmental progress, we find ourselves facing an even more dire, almost existential, set of global environmental challenges, from loss of biodiversity to climate change to plastic pollution, that call for action at all levels of government,” said Denis Hayes, the organizer of the first Earth Day in 1970 and Earth Day Network’s Board Chair Emeritus.

*“Progress has slowed, climate change impacts grow, and our adversaries have become better financed,” said Earth Day Network president Kathleen Rogers. “We find ourselves today in a world facing global threats that demand a unified global response. For Earth Day 2020, we will build a new generation of environmentalist activists, engaging millions of people worldwide.”**



name: _____

Billion Acts of Green

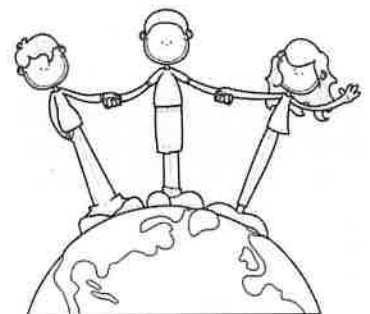
The EarthDay.org program "Billion Acts of Green" is recording all actions taken to help end climate change. Their goal for 2020 is to record 3.5 billion acts of green!

What can you do?

- Is your school having an Earth Day event? Have it registered with EarthDay.org to count towards their billion acts of green. Even if YOU are the only one doing something you can still have it count towards the billion acts of green!
- Find out if your community is having an event and have it registered with EarthDay.org

What is an act of green?

- Advocate for plant based foods served at your school.
- Volunteering for cleanup at a local park or in your community or school.
- Planting a pollinator garden or a tree.
- Recycling and encourage others to recycle, too.
- Using reusable bags and water bottles.
- Using glass storage containers.



Find out more at <https://www.earthday.org/take-action-now/>

name: _____

EARTH DAY WORD SCRAMBLE

Created on TheTeachersCorner.net [Scramble Maker](#)

1. IAR

2. MNILAA

3. BNCEAAL

4. UITEUABLF

5. NMYMITCUO

6. ANSCOEROTNVI

7. RSEECTRUA

8. RTEHA

9. EERDNADENG

10. RYGNEE

11. NNRTEIENMOV

12. TOSEFR

13. ERUFTU

14. OLBLGA

15. SGSRA

16. ATIBATH

17. UFRHMLA

18. HYHEATL

19. OMHE

20. DALN

conservation air healthy grass home animal land energy global habitat environment

balance forest earth community harmful future beautiful endangered creatures

Minerals: Introduction:

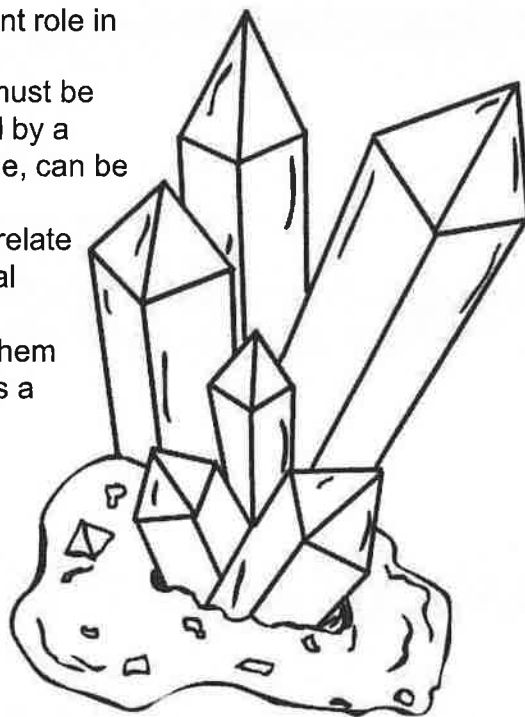
Name _____

Read the information below about Minerals. Then complete the "Fill-Ins" below.

Minerals are naturally occurring materials that are usually solid and often crystalline in structure. There are over 5,000 known minerals with the majority of them being "silicate" minerals. Minerals are important resources to the world's economy and play an important role in industry, construction and manufacturing.

Scientifically, minerals must meet several conditions. A mineral must be naturally occurring, stable at room temperature, and represented by a chemical formula. The common mineral Quartz, or Silicon Dioxide, can be represented by the chemical formula SiO_2 .

Minerals can be described by various physical properties which relate to their specific chemical composition. The most common mineral properties are; *color*, *crystal shape*, *hardness*, *luster*, *fracture* and *cleavage*. Geologists use these physical properties to help them identify minerals. One of these main properties, "hardness", uses a special scale called the "Mohs Hardness Scale" to measure a mineral's hardness when compared to other minerals.



Mohs Hardness Scale

Diamond	10	Harder
Corundum	9	
Topaz	8	
Quartz	7	
Feldspar	6	
Apatite	5	Softer
Fluorite	4	
Calcite	3	
Gypsum	2	
Talc	1	

The Mohs Hardness Scale measures the mineral's resistance to scratching. On the scale, Diamond is the hardest mineral with a ranking of 10, while Talc is the softest with a ranking of 1. The common mineral Quartz is fairly hard with a ranking of 7 on the scale.

One of the easiest properties to observe is a mineral's color. Although easy to see, color may be misleading because many minerals display similar colors or some minerals may occur in a variety of colors. Quartz, for example may appear clear, purple, pink, and even brown. Other minerals such as Fluorite may also appear in similar purple and pink colors as Quartz. Another way to look at a mineral's color is by using the "Streak" test. This test allows you to see a mineral's true color by making a "scratch" on a special tile leaving behind the mineral's powder. This powder shows the real mineral color. Overall, mineral identification can be challenging unless the observer takes into account a variety of physical properties.

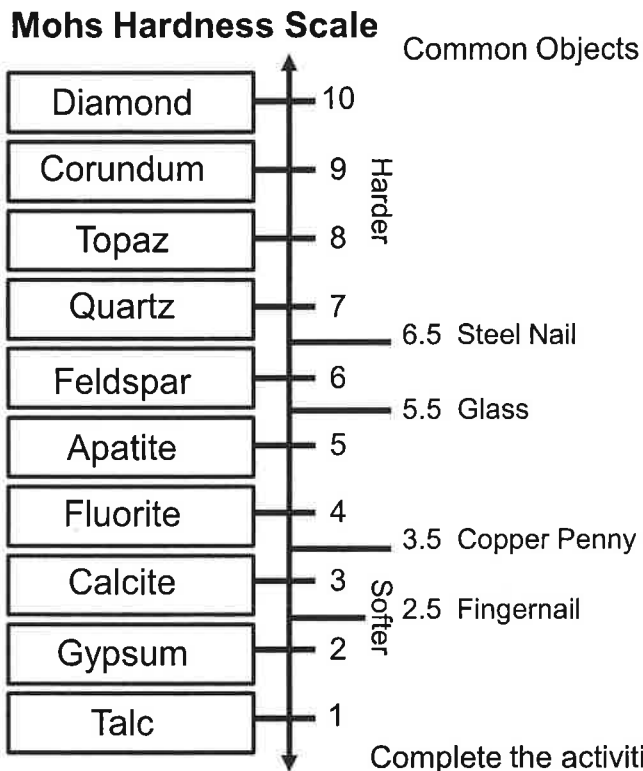
Complete the "Fill-In" questions below by using information from the reading above

- 1 – There are over _____ known minerals.
- 2 – In order to be a Mineral, a substance must be _____ occurring.
- 3 – Silicon Dioxide is also known as _____ and has a chemical formula of SiO_2 .
- 4 – The 6 common mineral characteristics are:

- 5 – A minerals hardness can be measured using the _____ Scale of Hardness.
- 6 – The hardest mineral is called _____, while the softest is called _____.
- 7 – Some minerals can have the same _____ or occur in a _____ of colors.
- 8 – A minerals true color can be found by using the _____ test.

Minerals: Mohs Hardness Scale: Name _____

Use the reading selection and Mohs Hardness Scale to complete the questions below.



The Mohs Hardness Scale is a standard to measure the hardness of minerals when compared to other minerals. In terms of hardness, it means the ability to *scratch* another material, or mineral. On the Mohs Scale to the left you can see the 10 standard minerals on the scale as well as several common objects with their approximate hardness. The hardest mineral, Diamond, has the ranking of 10, while Talc, the softest mineral, has a ranking of 1.

Other items on the scale can be used for comparison such as your fingernail, a copper penny, and glass. These common items can help identify a mineral's hardness by comparing them to one another.

Complete the activities below by using the Mohs Hardness Scale.

Fill in the blanks with the correct minerals.

- Which two minerals will scratch Topaz? _____ & _____
- List two common objects that will scratch Fluorite. _____ & _____
- Which two minerals can your fingernail scratch? _____ & _____
- Which mineral can be scratched by a penny, but not your fingernail? _____
- Which mineral is harder, Apatite or Feldspar? _____

Circle the correct choices below using the Mohs Hardness Scale.

- Which mineral can be scratched by a steel nail, but not glass?

Gypsum Quartz Feldspar Topaz

- Which mineral is harder than a steel nail?

Calcite Talc Apatite Corundum

- Which mineral is softer than glass, but harder than a copper penny?

Fluorite Gypsum Quartz Diamond

- Which mineral can scratch Quartz?

Apatite Gypsum Topaz Talc

- Which mineral can be scratched by glass?

Quartz Corundum Apatite Feldspar

FORMATION OF SEDIMENTS

weathering is the creation of smaller pieces of rock through physical or chemical means.

erosion is the moving of sediments from their original position.

deposition is the settling out of sediment.

compaction & cementation is the process by which sediment is squeezed and glued together into a new rock.

EXAMPLES

SEDIMENTARY

shale
limestone
conglomerate

METAMORPHIC

gneiss
marble
schist

IGNEOUS

pumice
obsidian
granite

ROCK

Created from the cooling and solidification of magma or lava.
The rock's crystal size depends on how quickly it cools.

MELTING

WEATHERING, EROSION & DEPOSITION

HEAT & PRESSURE

MELTING

Any type of rock can become another type, given the right conditions!

ROCK

Created from the deposition of sediments in layers over long periods of time. It often contains fossils.

WEATHERING, EROSION & DEPOSITION

HEAT & PRESSURE

ROCK

Existing rock is subjected to very high heat and pressure. This usually takes place deep underground.

THE

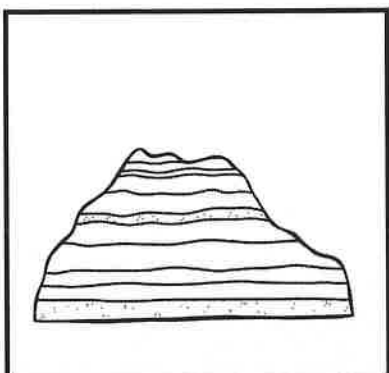
ROCK CYCLE

SHOW what you KNOW THE ROCK CYCLE

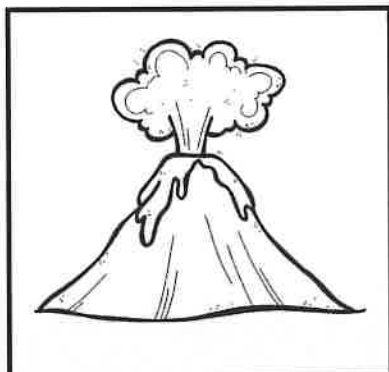
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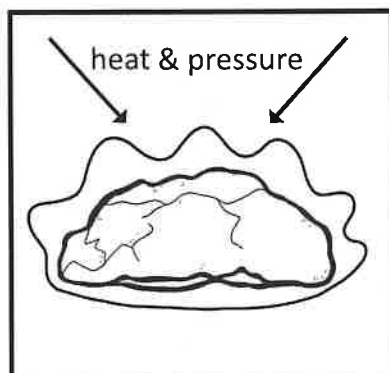
1. Identify the type of rock associated with the picture.



A:



B:



C:

2. During which process does layer upon layer of sediment build up, exerting pressure on the layers below?

- a. erosion
- b. compaction
- c. conglomerate
- d. weathering

3. Which of the following is an igneous rock?

- a. gneiss
- b. shale
- c. limestone
- d. pumice

4. Metamorphic rock transforms to sediment by _____?

- a. melting and cooling
- b. cementation and compaction
- c. weathering and erosion
- d. heat and pressure

5. Heat and _____ can change sedimentary rock into metamorphic rock.

6. Igneous rocks form from the _____ of magma or lava.

7. _____ is the process which causes magma to form.

8. Why are some igneous rocks coarse and others are smooth?

9. Which type of rock often contains fossils and how do you think this occurs?