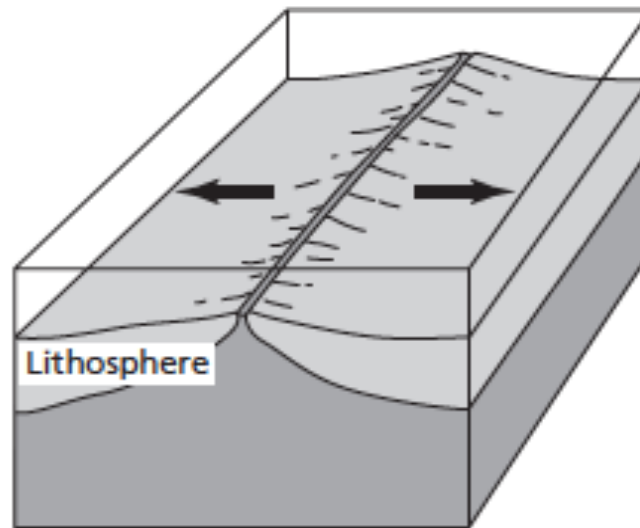


October 31, 2014

- 17** The diagram below shows two lithospheric plates moving away from each other.



Which best describes plate movement rate?

- A 50 kilometers per year
- B 5 kilometers per year
- C 50 meters per year
- D 5 centimeters per year

1. Use textbook to support your answer.

2. Write down page number where information is found.

CHAPTER 9 DAY 5

SECTION 2

SEDIMENTARY ROCKS

0707.7.3 Distinguish among igneous, **sedimentary** and metamorphic rocks and relate these to a simple diagram of the rock cycle.

REVIEW!

- Your quiz will be at the end of class.
- Let's review what we learned yesterday about igneous rocks!
- <https://www.youtube.com/watch?v=aCnAF1Opt8M&safe=active>
 - ▣ Flow Chart
- <http://www.msnuclous.org/membership/html/jh/earth/igneous/jhigneous.pdf>

Essential Questions

- How do we classify rocks?
- How are different types of sedimentary rocks formed?

Why it's important

- Rocks form the land around us.

Performance Indicator: 0707.7.2 Label a diagram that depicts the three different rock types.

22 A student studying different rock types observed four unidentified rocks. The student wrote a description of each rock under its picture, as shown below.



1. A smooth, glassy rock with sharp edges



2. A light-colored rock that contains fossils



3. A rock with alternating bands of light and dark minerals



4. A rock composed of pebbles and small pieces of rocks cemented together

What mastery looks like

Which rocks could be classified as Sedimentary rock?

F 1

G 2

H 3

J 4

Sedimentary Rocks

Sediment -make up of pieces of broken rock, shells, and mineral grains, and other materials. Wind, ice, gravity and water carry sediment and it collects in layers.

Sedimentary rock forms when sediments are pressed and cemented together, or when minerals form from solutions.



Detrital Rocks

- **Detrital rock** or sandstone are made up of grains of minerals or other rocks that have moved and been deposited in layers.
- Other minerals in water act to cement their particles together.



sandstone

Identifying Detrital Rock

Use the size of the grains.

Smallest, clay-sized grains feel slippery when wet.

(Shale)



Larger, sand-sized grains

(sandstone)



Silt-sized grain are slightly larger than clay and has a rough feeling. (siltstone)



Pebbles mixed and cemented together with other sediments

(conglomerate)



Chemical Sedimentary Rocks

- Some sedimentary rocks form when seawater evaporates.
- forms when mineral-rich water from geysers, hot springs, or salty lakes evaporates
- Other examples of chemical rocks – dolomite, flint, iron ore



Example of seawater deposit – halite



<https://www.youtube.com/watch?v=HZvoAQUPd4c>

Check for understanding

Think – Pair – Share

How is salt that forms on your skin after swimming in the ocean similar to the formation of one type of chemical sedimentary rock?

Organic Rock

- **Chalk** and **coal** are examples of the group sedimentary rocks called **organic rock**.
 - Made up of: after living matter dies, piles up, and is compressed into rock.
 - Also, there rocks form in the ocean and usually are classified as limestone.

<https://www.youtube.com/watch?v=4pP3le73UuY>



Fossils

Chalk and other types of fossiliferous limestone are made from the fossils of millions of tiny organisms



Performance Indicator:

0707.7.2 Label a diagram that depicts the three different rock types.

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How do you know?

Which rocks could be classified as Sedimentary rock?

F 1

G 2 ←

H 3 ←

J 4 ←

Exit Ticket

- Complete section 2 review
 - Questions 2, 3, 4