

Rock Cycle Questionnaire

“Arizona Rocks” Pre-Visitation Activity

Time:

30 – 45 minutes

Grades:

K – 8

Summary:

This pre-visit activity introduces key terms and subjects related to the rock cycle.

Goals:

To introduce students to the rock cycle in preparation for the “Arizona Rocks” class presented during their Desert Outdoor Center visitation.

Directions:

1. Ask students to answer each question.
2. Read answers and start discussion about rock cycle.

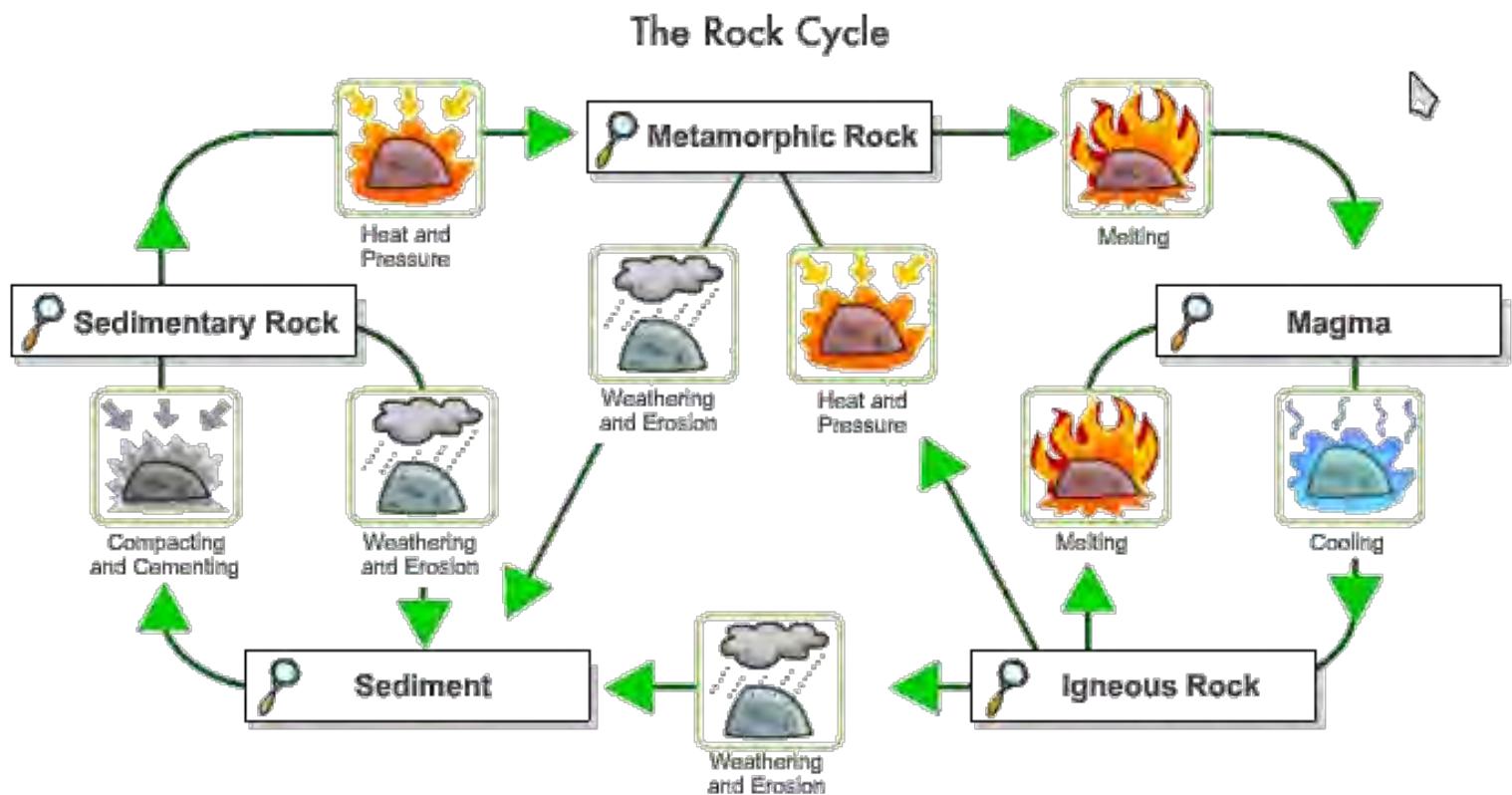
Directions: Answer the following questions:

1. Rocks are SOLIDS made up of MINERALS and other MINERAL LIKE MATTER which include:
 - Fragments – broken pieces of other rocks
 - Organic Matter – Bits of old plants and animals
 - Skeletons of old sea creatures

Rocks are solids made up of _____ and other _____.

3. Write your definition of the rock cycle: _____

Use the following picture of a rock cycle to answer the following questions:



<http://www.learner.org/interactives/rockcycle/diagram.html>

3. Is there a beginning to the rock cycle?

Yes No

4. Name the three rock families starting with the following letters:

S _____

I _____

M _____

5. Rocks turn into sediment by the process of: _____.

6. Can a sedimentary rock like limestone become a metamorphic rock like marble?

YES

NO

If yes, what process does it go through? _____

7. Magma that flows above the Earth's surface is called _____.

8. Magma that cools outside the Earth's surface as lava creates _____ rock.

- a. Metamorphic
- b. Sedimentary
- c. Igneous

9. If any rock gets hot enough below the Earth's surface, it can turn into _____.

10. Rocks are eroded and washed away by _____ and



_____ , which turns them into SEDIMENT.

11. SEDIMENT can become compacted and cemented to form a _____ type of rock.

- a. Metamorphic
- b. Sedimentary
- c. Igneous

12. List one example of a sedimentary rock _____.

13. If that sedimentary rock goes through heat and _____ beneath the Earth's crust, it can turn into a _____ (a., b., or c.) rock.

- a. Metamorphic
- b. Sedimentary
- c. Igneous

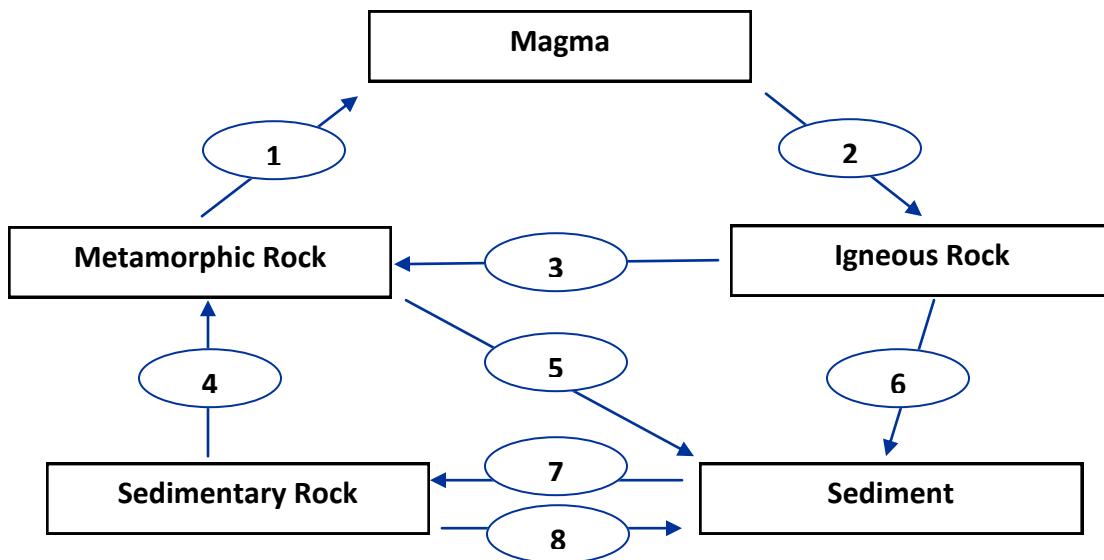
14. The metamorphic rock can become eroded and weathered away into SEDIMENTS again creating _____ rock.

15. If that metamorphic rock instead melted into magma, it would later form an _____ rock.

16. Any rock can turn into another type rock but this can take _____ of years.

17. The rock cycle will never _____.

18. Complete the rock cycle by filling in the blanks. The following terms are to be used: melting, cooling, compacting and cementing, weathering and erosion, heat and pressure. SOME TERMS ARE USED MORE THAN ONCE.



1. _____

5. _____

2. _____

6. _____

3. _____

7. _____

4. _____

8. _____

Answers:

1. Minerals and other mineral like matter.
2. The rock cycle is a model that describes the formation, breakdown, and reformation of a rock as a result of sedimentary, igneous, and metamorphic processes.
3. No
4. Sedimentary, Igneous, and Metamorphic
5. Weathering and Erosion
6. Yes, metamorphosis
7. Lava
8. Igneous
9. A metamorphic rock
10. Wind and rain
11. B
12. Sandstone, wacke, conglomerate, breccias, siltstone, chert, shale, limestone, dolomite, coquina, rock gypsum, or fossil
13. Pressure, metamorphic
14. Sedimentary
15. Igneous
16. Millions
17. End
- 18.

- | | |
|-----------------------------|------------------------------------|
| 1. <u>Melting</u> | 5. <u>Weathering and Erosion</u> |
| 2. <u>Cooling</u> | 6. <u>Weathering and Erosion</u> |
| 3. <u>Heat and Pressure</u> | 7. <u>Compacting and Cementing</u> |
| 4. <u>Heat and Pressure</u> | 8. <u>Weathering and Erosion</u> |