

MiSP Weathering and Erosion Worksheet #3 - Assessment L3

Name _____

Date _____

L1-3

1-2 Define the words listed below:

1. Weathering - _____

2. Erosion - _____

3a. Is it possible to have weathering without erosion? Explain you why you answered yes or no.

3b. Is it possible to have erosion without weathering? Explain you why you answered yes or no.

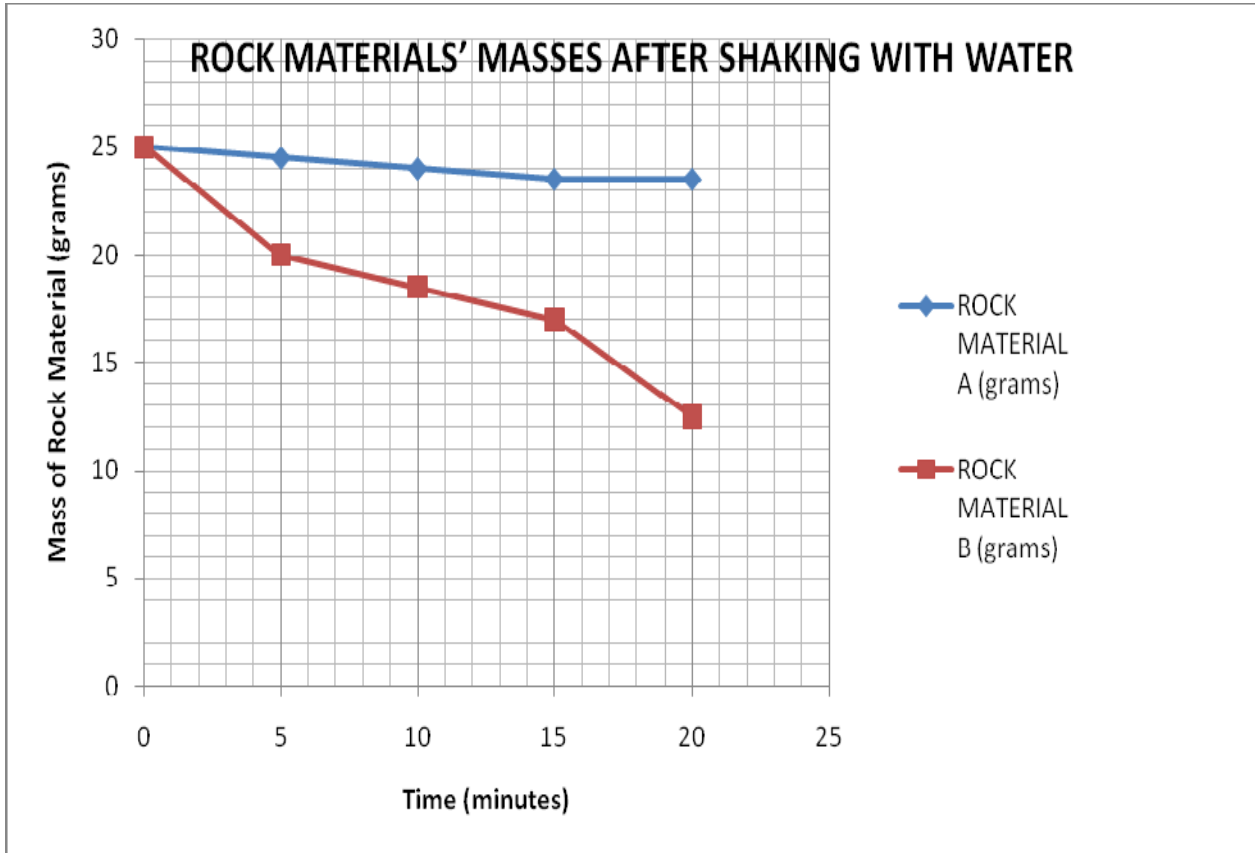
4. Think about the *MASS WASTING - GLACIAL CREEPING* experiment and worksheet. What happens to the speed of a glacier or other slow moving examples of mass wasting when it moves down a slope - do they slow down, speed up, or does the speed remain constant? Why?

5-12 Base your answers on the data table and graph below. Samples of three different rock materials, A, B, and C were placed in three containers of water and shaken vigorously for 20 minutes. Every five minutes, the rocks were strained through a screen. The mass of the rock materials trapped by the screen were dried and their mass was measured. This is the data table:

ROCK MATERIALS' MASSES AFTER SHAKING WITH WATER

SHAKING TIME (minutes)	ROCK MATERIAL A (grams)	ROCK MATERIAL B (grams)	ROCK MATERIAL C (grams)
0	25.0	25.0	25.0
5	24.5	20.0	17.5
10	24.0	18.5	12.5
15	23.5	17.0	7.5
20	23.5	12.5	5.0

The data for Rock Material A and Rock Material B is graphed on the next page:



5. Graph the data for Rock Material C on the graph above. Use points and surround each point with a small circle. Connect the points:



6. Refer to the graph. Which sample (A, B, or C) lost the **most** mass in the **first** five minutes? Which sample lost the **most** mass in the **last** five minutes?

-most in the first five minutes: _____

-most in the last five minutes: _____

7. What are the most likely reasons for the differences in the rate (speed) that mass was lost in the three rock samples?

L2-3

8. Calculate the unit rate of change (slope) for Rock Material A from 0 to 15 minutes. Show work.

Unit rate of change (slope) for Rock Material A = _____

9. How will the unit rate of change for Rock Material B from 5 to 10 minutes compare to the unit rate of change for Rock Material A from 0 to 15 minutes? Discuss numerical value and sign (positive/+ or negative/-).

L3

10. What is the y intercept for Rock Material A? _____

11. Using the unit rate of change (slope) from #8 and the y intercept from #10, what is the formula for the line for Rock Material A from 0 to 15 minutes?

12. Using the formula from #11, how many grams of Rock Material A would be left if a mass measurement had been made at 7.5 minutes? Show work.

Mass of Rock Material A at 7.5 minutes = _____ g