MiSP Weathering and Erosion Worksheet #3 – Assessment L2

1-2 Define the words listed below:

1. Weathering - _____________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

2. Erosion - ________________________________________________________
   ___________________________________________________________________
   ___________________________________________________________________

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

3b. Is it possible to have erosion without weathering? Explain 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?

________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

5-9 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:

<table>
<thead>
<tr>
<th>ROCK MATERIALS' MASSES AFTER SHAKING WITH WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHAKING TIME (minutes)</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

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/-).

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________