Ch 7.1 Weathering
Section 1 Guided Reading

Scan *Section 7.1 of your text. Write three questions that come to mind.*

1. _____

2. _____

3. _____

Use your text to define the following terms

1. acid_____

   _____

2. weathering _____

   _____

3. mechanical weathering_____

   _____

4. frost wedging _____

   _____

5. exfoliation _____

   _____

6. chemical weathering _____

   _____

7. oxidation _____

   _____

8. process _____

   _____

Mechanical Weathering: *Sequence the processes by which factors in mechanical weathering break down rocks and minerals. Number the steps in each process 1–4.*

Temperature

_____ Freezing water exerts pressure on the rocks and makes them split.

_____Water collects in the cracks of rocks and rock layers.

_____Water thaws and the cycle, called frost wedging, repeats.

_____Water expands as it freezes.

Pressure

_____ Successive layers of rock are stripped away in a process called exfoliation.

_____ The bedrock surface expands, and long cracks form parallel to the surface of the rock.

_____ The overlying rock layers are removed and the pressure on the bedrock is reduced.

_____ Bedrock at great depths is under pressure from the overlying rock layers.

Chemical Weathering: *Outline information about how water, oxygen, and carbon dioxide contribute to chemical weathering to help you understand and remember this cause of erosion.*

I. Water

A. Important in chemical weathering because _____.

B. Hydrolysis is _____.

1. It occurs in the decomposition _____.

II. _____

A. Like water, it can _____.

B. This chemical reaction is called _____.

III. _____

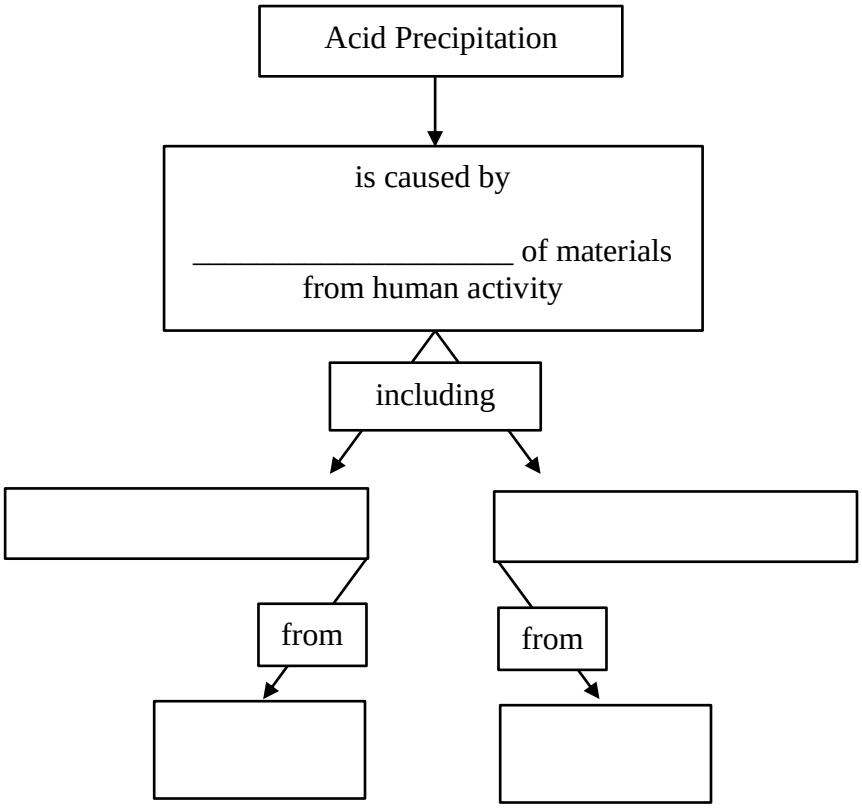
A. Produced by _____.

B. Combines with water in the atmosphere to form _____.

C. Carbonic acid reacts with minerals to _____.

1. Limestone caverns can form when _____.

Organize *information about acid precipitation by completing this graphic organizer.*



Summarize *the conditions that can increase the rate of weathering by completing the table.*

Variables that Affect the Rate of Weathering	
Variable	**Most weathering happens with . . .**
Climate	warm, rainy (chemical) cool, dry (physical)

Real World Connection: You have been asked to design a stone monument. The monument will be located in a city that has a warm, rainy climate. You as the artist must make some design decisions. List what they might be, and why. Include information about its placement, design, and the materials you would use to make it.

Placement: _____

_____

_____

Design: _____

_____

_____

Materials: _____

_____

_____