

**Objectives**

- Explain how mechanical and chemical weathering are different.
- List the ways a rock can be weathered mechanically.
- List the ways a rock can be weathered chemically.
- Explain why weathering occurs at different rates.

**The BIG Idea**

- Rocks change into other rocks over time.

**Key Concepts**

- Rocks break apart through weathering.

**Rocks break down over time**

1. What is weathering? \_\_\_\_\_
2. What are the two types of weathering? \_\_\_\_\_

**Mechanical weathering produces physical changes in rocks**

3. What is mechanical weathering? \_\_\_\_\_  
\_\_\_\_\_
4. What happens to a rock's chemical composition during mechanical weathering?  
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5. List five ways mechanical weathering can occur. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. Describe pressure release (unloading). \_\_\_\_\_
7. Describe a way an organism (except humans) can cause mechanical weathering.  
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**Chemical weathering changes the chemical composition of rocks**

8. What is chemical weathering? \_\_\_\_\_  
\_\_\_\_\_
9. List two ways chemical weathering occurs. \_\_\_\_\_

10. What is the most important "ingredient" in chemical weathering? \_\_\_\_\_
11. What is the function of carbon dioxide in chemical weathering? \_\_\_\_\_  
\_\_\_\_\_
12. Describe a way organisms (except humans) cause chemical weathering? \_\_\_\_\_  
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13. Describe how rusting occurs. \_\_\_\_\_  
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**Weathering occurs at different rates.**

14. What are the three factors that control the rate of weathering?  
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\_\_\_\_\_
15. What is the relationship between the rate of weathering and surface area?  
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16. What is the relationship between the rate of weathering and rock composition?  
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17. What is the relationship between the rate of weathering and climate?  
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18. Explain how mechanical weathering allows chemical weathering to increase the rate of weathering. \_\_\_\_\_  
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