

# Weathering Erosion Deposition Worksheet

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## Part 1: Building a Foundation

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### What is the primary difference between physical and chemical weathering?

*Hint: Consider how each type affects the composition of rocks.*

- A) Physical weathering involves chemical changes, while chemical weathering does not.
- C) Physical weathering breaks rocks into smaller pieces without changing their composition, while chemical weathering alters the mineral composition.
- D) Physical weathering is caused by biological factors, while chemical weathering is caused by temperature changes.
- C) Physical weathering changes the mineral composition, while chemical weathering breaks rocks physically.

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**Which of the following are agents of erosion? (Select all that apply)**

*Hint: Think about natural forces that can move soil and rock.*

- A) Water  
 C) Ice  
 D) Sunlight  
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**Describe the process of deposition and its role in forming new landforms.**

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*Hint: Consider how sediment is laid down in different environments.*

**List two examples of landforms created by deposition and briefly describe how each is formed.**

*Hint: Think about where you might see these landforms in nature.*

1. Example 1: Delta

2. Example 2: Beach

**Which type of weathering is most likely to occur in a humid, tropical climate?**

*Hint: Consider the effects of moisture and temperature on rock breakdown.*

- A) Physical weathering
- C) Biological weathering
- D) None of the above
- C) Chemical weathering

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## Part 2: Application and Analysis

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**A farmer notices increased soil erosion on their farmland. Which of the following practices could help reduce erosion?**

*Hint: Think about agricultural practices that maintain soil integrity.*

- A) Removing all vegetation
- C) Increasing the slope of the land
- D) Over-irrigating the fields
- C) Implementating crop rotation

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**In a coastal environment, which processes are likely to contribute to the formation of sand dunes? (Select all that apply)**

*Hint: Consider the natural forces at play in coastal areas.*

- A) Wind erosion
- C) Glacial movement
- D) Tidal action
- C) Water deposition

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*Hint: Consider the natural forces that shape coastal landscapes.*

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**Describe a real-world scenario where deposition has significantly altered a landscape, and explain the factors that contributed to this change.**

*Hint: Think about rivers, lakes, or coastal areas.*

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**Which of the following scenarios best illustrates the relationship between weathering, erosion, and deposition?**

*Hint: Consider the sequence of processes in a natural setting.*

- A) A rock being broken down by wind, transported by a river, and forming a delta.
- C) A glacier melting and creating a lake.
- D) A mountain being uplift by tectonic forces.
- C) A rock being dissolved by acid rain and remaining in place.

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**Analyze the effects of deforestation on the erosion process. (Select all that apply)**

*Hint: Consider how vegetation removal impacts soil stability.*

- A) Increases soil stability
- C) Reduces the amount of organic material available for biological weathering
- D) Has no impact on erosion rates
- C) Leads to increased runoff and soil erosion

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### Part 3: Evaluation and Creation

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**Evaluate the potential impacts of climate change on weathering and erosion processes. (Select all that apply)**

*Hint: Consider how changing climates affect natural processes.*

- A) Increased chemical weathering due to higher temperatures
- C) Increased erosion due to more frequent extreme weather events
- D) Reduced biological weathering due to loss of vegetation
- C) Decreased erosion due to more stable weather patterns

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**Propose a comprehensive plan to manage erosion in a hilly agricultural region, considering both natural and human-induced factors.**

*Hint: Think about sustainable practices and community involvement.*



**Propose a comprehensive plan to manage erosion in a hilly agricultural region, considering both natural and human-induced factors.**

*Hint: Think about sustainable practices and land management.*

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*Hint: Think about sustainable practices and community involvement.*

**Compare and contrast the processes of erosion and deposition, highlighting how they can occur simultaneously in a river system.**

*Hint: Consider the flow of water and sediment transport.*

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*Hint: Consider the dynamics of sediment movement in rivers.*

**Compare and contrast the processes of erosion and deposition, highlighting how they can occur simultaneously in a river system.**

*Hint: Consider the dynamics of river flow and sediment transport.*