

Deposition Lessons: Start Here!

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Introduction Deposition or sedimentation is the process that releases, settles, or drops off sediments from an erosional system. The deposition of sediments has many effects on people. For example, you play on the beach or marvel at the formations in caves. People mine sand and gravel from wave, glacier, and stream deposits. They also mine chemical sedimentary rocks, such as rock salt, rock gypsum, and dolostone. Most people spend a large part of their lives on sediment depositional features such as beaches, flood plains, deltas, marine coastal plains, and glacial deposits, or on the sedimentary rocks formed from deposition of sediments.

In this series of lessons you will learn about the factors affecting deposition, such as sediment particle size, shape and density, and compare and contrast depositional features (landforms) created by streams, ocean waves, wind and glacier.

Lesson 1 Outline

<p>Motivation</p> <p>Study slide No.3 from the PowerPoint presentation then watch the animation video clip:</p> <p>http://youtu.be/8kgh1Zd32-Y</p> <p>Question: In both the animation and pictures from the slide, which natural phenomenon triggers the chain of events leading to deposition?</p>
<p>Essential Questions</p> <ol style="list-style-type: none">1. What factors cause deposition?2. Why are sediment particles sorted?
<p>Objectives:</p> <ol style="list-style-type: none">1. Explain how particle size, shape and density affect the rate of sediment deposition.2. Compare and contrast vertical and horizontal sorting.
<p>Task 1: PowerPoint Presentation</p> <p>Study slides 4 through 8 and complete your notes Watch the video clip: https://youtu.be/yqxelEQMNaU Go back over the notes (slides 4-8)</p>
<p>Task 2: Practice</p> <p>Assessment #1: PowerPoint presentation – Slide No.9</p>
<p>Task 3: Exit Ticket Slide No.10 - Regents questions</p>

Deposition - Lesson 2 Outline

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Motivation

Watch video: <https://youtu.be/UHAtv5J76FM>

Question: Which of the two axes (X or Y) on a line graph provides data on the independent variable?

Essential Questions

1. How are sediment particles carried in a stream?
2. How do streams deposit their sediment load?

Objectives:

1. Interpret the stream velocity graph on page 6 of the Earth Science Reference Tables.
2. Describe the landforms created by stream deposition.

Task 1: PowerPoint Presentation:

Study slides 13 through 19 and complete your notes
Watch the video clip: <https://youtu.be/YoZZZQ2lxOc>
Go back over the notes (slides13-19)

Task 2: Practice

Refer to page 6 of the Earth Science Reference Tables - Transported Particle Size to Water Velocity graph
Answer questions 1-5 (Slide No.20).

Task 3: Exit Ticket – Slide No.21 - Regents questions

Deposition – Lesson 3 Outline

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Motivation

Watch video 1: <https://youtu.be/4rqRPVrWJ0>

Question: What are some effects (on the life and livelihood) of erosion and deposition on coastal communities?

Essential Questions

1. How do waves deposit sediment particles?
2. How do wind and glacier deposit sediment?

Objective:

Compare and contrast landforms created by wave, wind and glacier.

Task 1: PowerPoint Presentation:

Study slides 23 through 31 and complete your notes

Watch video 2 - Wave Erosion: https://youtu.be/ZvAi_piQKNo

Watch video 3 – Glacier Erosion: <https://youtu.be/OvRXWbTZ8YY>

Task 2: Practice – Deposition Review

Study slides 49 to 70; review the photos and identify the types of depositional features.

Task 3: Exit Ticket

Slide No.47 - Regents questions

Landform quiz – Slides 72-77