

LESSON 1:

FACTORS & PATTERNS OF DEPOSITION

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Deposition

Deposition is the process by which transported sediment is dropped in a new place.

Study slide No. 3 then copy and paste the URL below into your browser and watch the animation.

[Video 1: http://youtu.be/8kqh1Zd32-Y](http://youtu.be/8kqh1Zd32-Y)



Weathering

Freeze

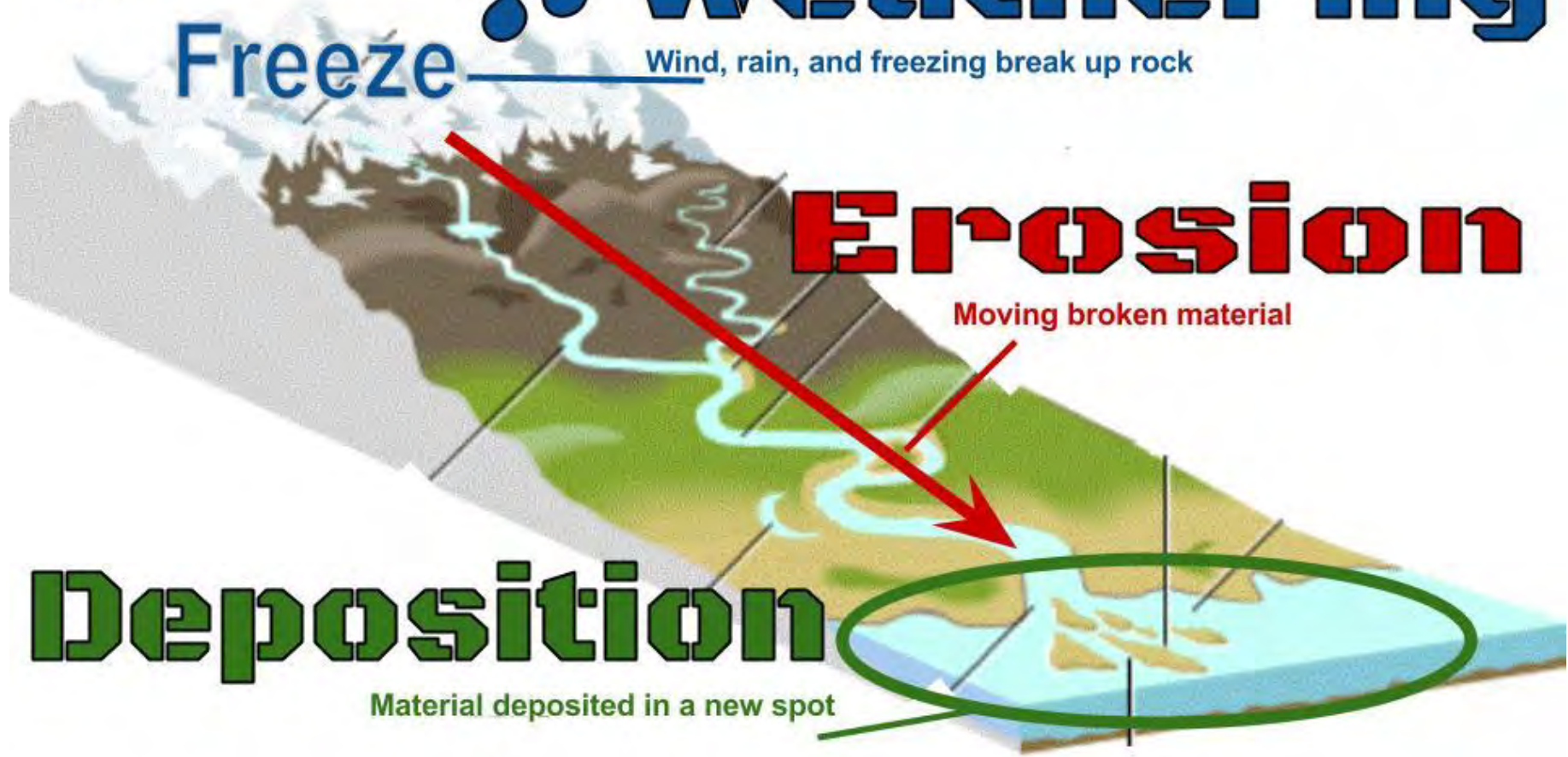
Wind, rain, and freezing break up rock

Erosion

Moving broken material

Deposition

Material deposited in a new spot

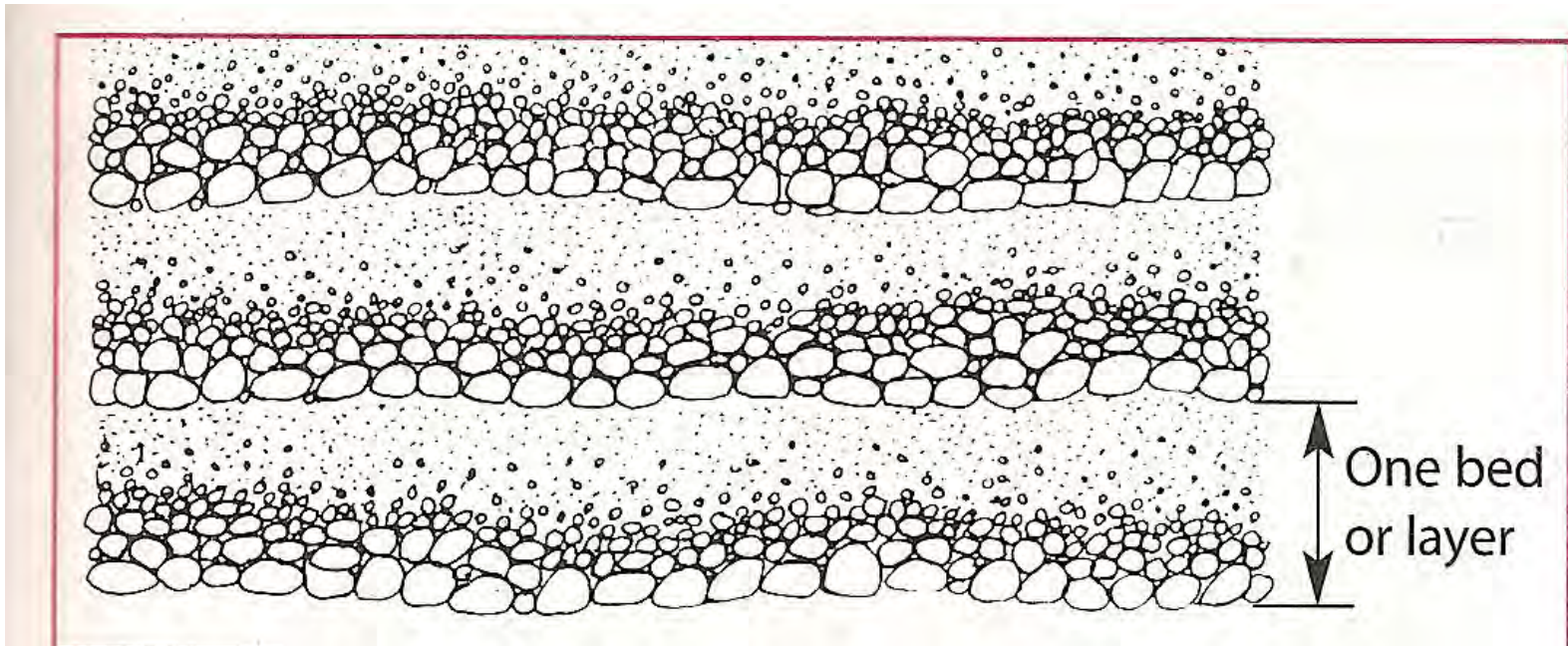


Factors Influencing Deposition

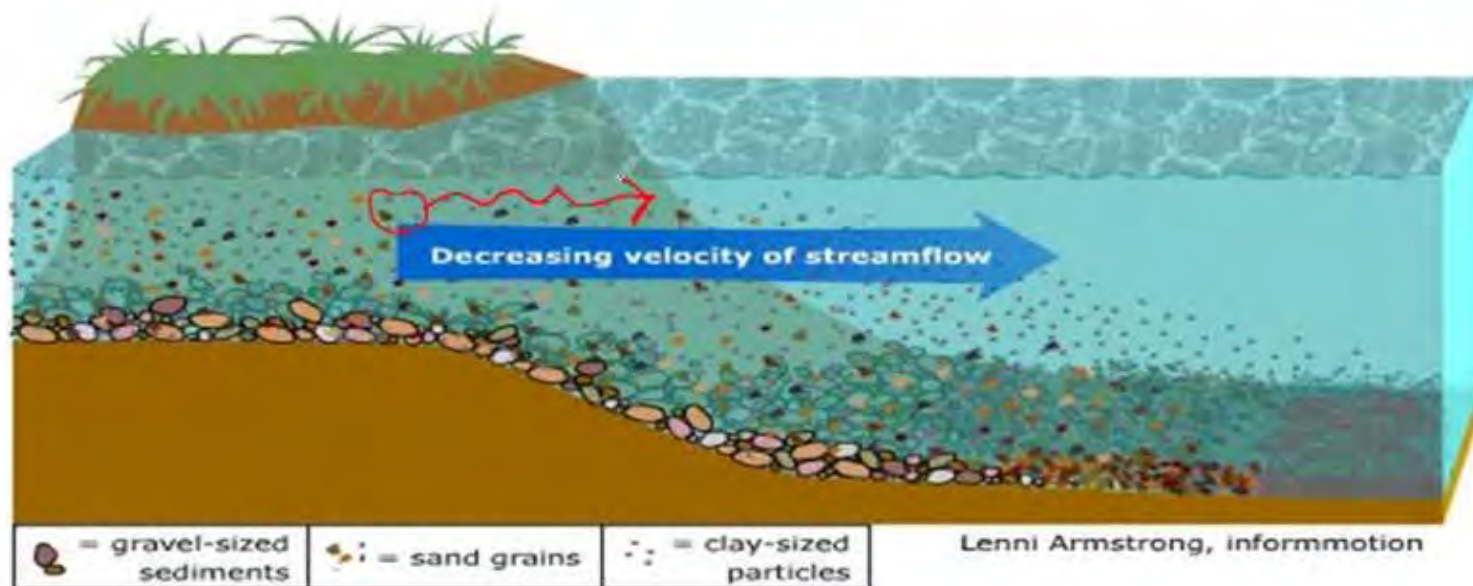
- **Velocity of an Erosional System**
 - The slower a medium is moving, the less it's carrying power.
- **Particle Size**
 - Large particles settle faster than small ones.
- **Particle Shape**
 - Rounded particles settle faster than flat ones.
- **Particle Density**
 - Denser particles settle faster than less dense particles.

Bedding of Sediment

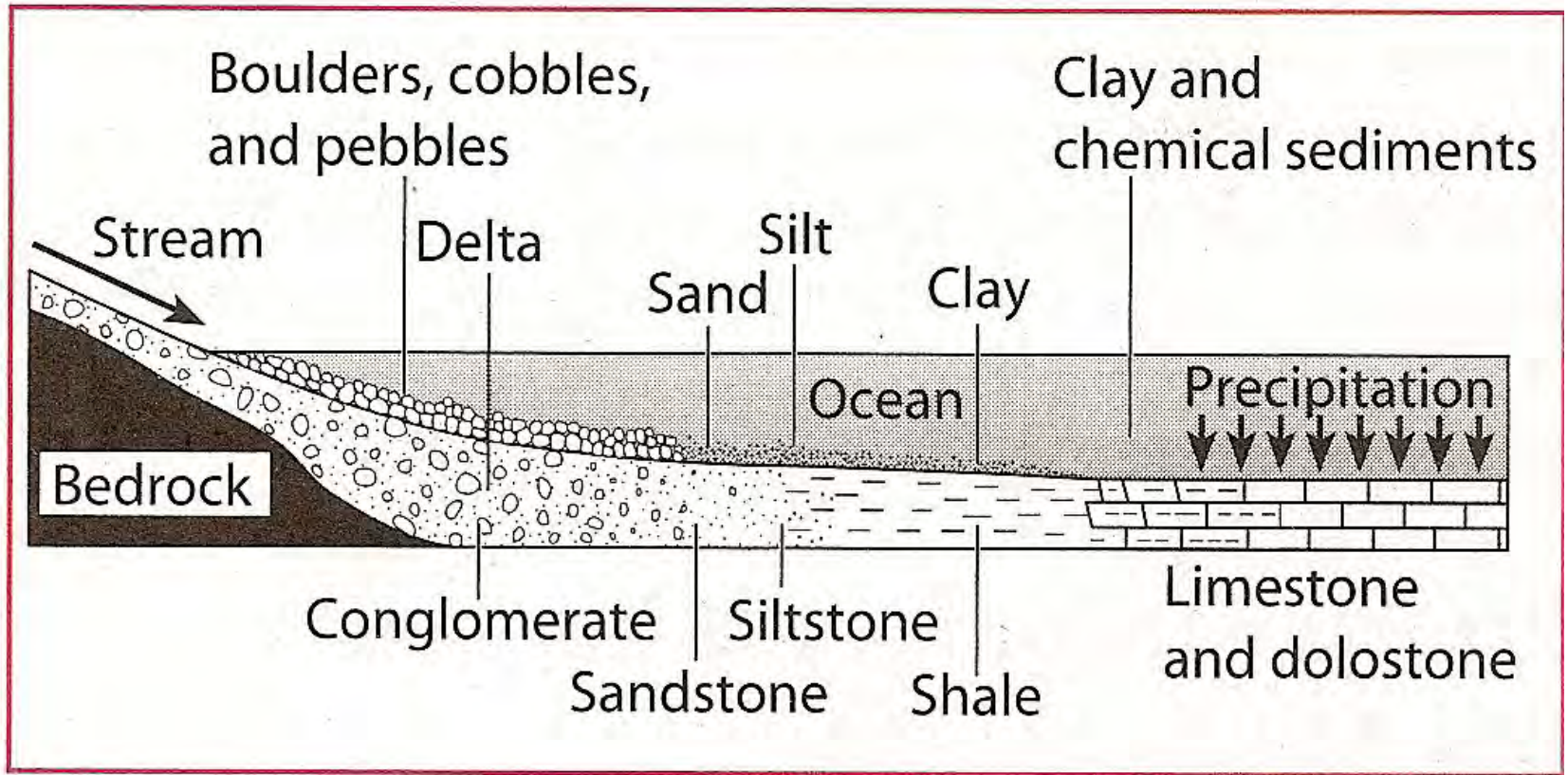
- Each layer of sediment is called a **bed**.
- Rapid deposition of sediment results in **graded bedding**, a vertical sorting.



How Deposition Works



Horizontal Sorting



Deposition by Gravity

- Most deposits resulting from mass movements are **unsorted** and do not show distinct layering.

ASSESSMENT #1

1. Which factor most likely causes sediment to be sorted in a horizontal pattern? (Hint: go back over slides 5-7)
2. As compaction and cementation of sediments eventually occur, in what order will the rock types below form starting from the mouth of the stream (where it enters the ocean or lake)?

Sandstone, shale, conglomerate, limestone/dolostone, siltstone

3. What are the range of sizes of the sediment particles that make up each of the rock types in question 2?

Exit Ticket: Lesson 1

1. Briefly explain why deposition of sediment usually occurs where a stream enters a lake.
2. Describe the arrangement of sediment particles that are deposited by a river.