

**Objective: What factors affect Erosion and Deposition in Rivers?**

Do Now: Discuss Hurricane Article

Brainstorm how can we go downhill faster?

Name two factors that affect stream velocity:

(4) **Slope/ Gradient** Increases: Stream Velocity Increases Draw Picture

Kinetic Energy (moving) Increases;

Particle Size Increases.

Where do rivers move fastest? At the Source (upstream). Draw picture

**Discharge/Volume** of Water Inc.: Stream Velocity Inc. Draw Picture.

( what could happen to increase the amount of water in a river? Rainfall, Snowmelt in Spring,..)

Kinetic Energy Increases

Particle Size Increases

As **Stream Velocity Inc;** **Sediment Size Inc.** ESRT p. 6

**Erosion** - Transport, movement of weathered sediments by water, wind, ice, gravity.

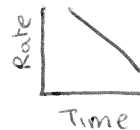
**Deposition** – Dropping of sediments.

Terminology:

**Settling Rate**- Speed/Rate at which dediments settle/.fall

**Settling Time**- Time it takes sediments to settle

\*\*\* High Rate = Low Time



What factors affect deposition? Particle size, shape and density.

Larger, More Dense, Round Sediment is deposited FIRST.

**1. Particle Size**

As paticle size increases, settling rate increases.



**2. Particle Shape**

As particle shape gets rounder, settling rate increases.



**3. Density**

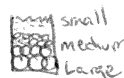
As density increases, settlin rate increases.



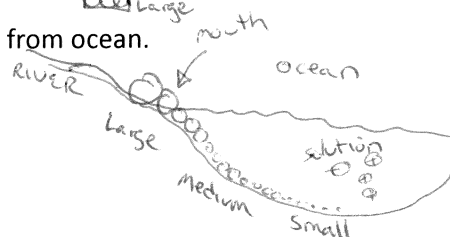
**Sorting:**

In water sediments are deposited in a well-sorted manner, with larger, dense sediments on the bottom.

**Vertical Sorting:** Draw picture of column



**Horizontal Sorting:** Picture entering river from ocean.



Demo/Lab - Deposition

