

## Lesson 2 Rivers, Rocks and Sand!

### Student Activity

In this activity, you will make observations about how the size of particles affects where they are deposited. You will be given a sediment tube with gravel, sand, fine sand, and other “stuff” in it. The sediment tube is a model to help you understand how deposition occurs in rivers.

1. Make a prediction about size of particles and where they will be deposited.

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2. Shake the sediment tube for 30 seconds. Make sure all the rocks and sand are mixed up and moving loosely in the tube.
3. After shaking, stand the tube up on the table and observe how the particles fall to the bottom. Watch for two minutes. Draw what the tube looks like in the space labeled “*Trial 1*” below.
4. Repeat the process two more times and record the data in the space below.

#### 5. Written Observations

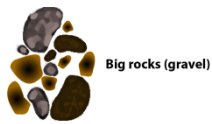
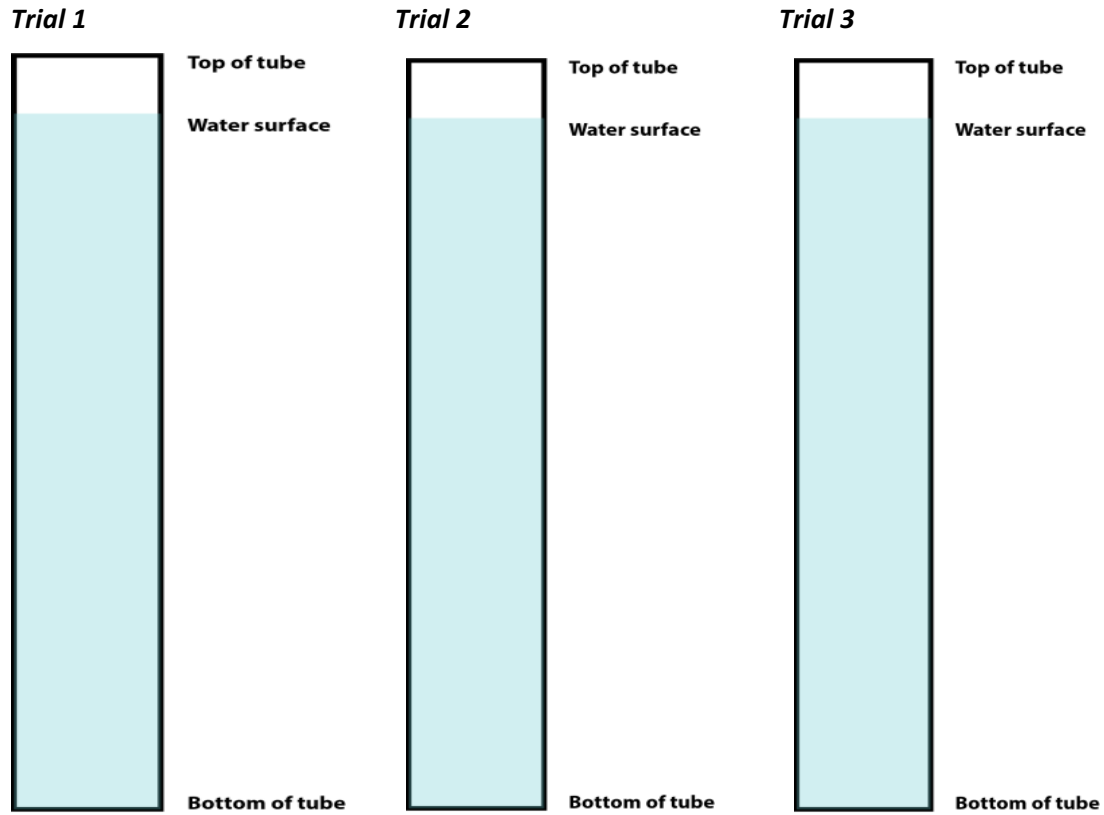
*Size: What was on the bottom of the tube when it settled (rocks, sand...)? How did size change?*

*Color: Describe any color differences between the different layers?*

*Other Observations: Was anything floating? What did the water look like?*

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## 6. Observations (Drawings)



Big rocks (gravel)



Big sand grains



Small grains (sand, clay...)

Draw each of your observations for all three trials. Be sure to label each of the parts using the key to the left. For each trial, shake the tube for 30 seconds. Make sure you shake the sediment tube with the same intensity. Then have the sediment tube stand still for two minutes. Record your drawings above.

7. After the third trial, leave the tube standing on the table for 30 minutes. **Do not disturb the tube during this time!**

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## Final Observations

8. After 30 or more minutes, look at your (undisturbed) sediment tube again. Draw what you see below.

9. Describe what has happened after 30 minutes?  
How has it changed? Can you see anything new?

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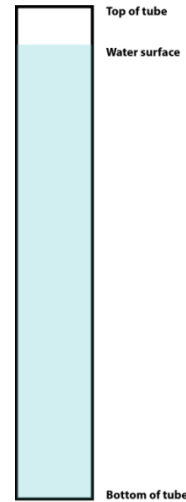
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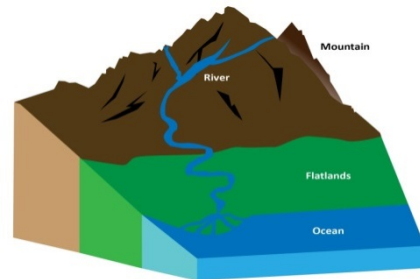
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## Sediment in Rivers

Rivers carry sediment, too! In the diagram below, you can see a river that starts in the mountains, flows down from the mountains onto the flatlands, and flows out to the sea.



**Question:** How does the particle size of sediment change as a river flows from the mountains, through the flatlands, and into the ocean?

Re-read your prediction on page 1. If your prediction was correct, justify your prediction by using evidence from the sediment tube observations. If your prediction was *incorrect*, make a new claim. Then justify the new claim using evidence from your observations.

*Claim:*

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*Evidence:* Use sediment tube observations to support your claim.

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*Reasoning:*

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