

SEDIMENTATION TUBES and SOIL EROSION (upper)

Particles of soil and rock are called **sediment**. It comes from many sources, including the land around rivers. Particle size is one factor that determines how long sediments stay suspended in water. That also determines how clear water will be, and how quickly it can be cleared. Excessive sedimentation in rivers can have adverse impacts on both plant and animal life in and around the river. In this investigation, you will explore something about sedimentation.

Find the sedimentation tubes.

Tube #1 contains only sand. Tube #2 contains sand plus a small amount of soil. Tube #3 contains sand plus a medium amount of soil. Tube #4 contains sand and a larger amount of soil.

Pick up tube #4

- Turn it one upside down and shake it gently. This will loosen the sand and soil at the bottom of the tube.
- Next, turn the tube right side up and set it down on the counter top.
- Observe how the sand and soil settle out of the water.
- Repeat the same steps for tube #3, then for tube #2, and finally for tube #1.



Tube #1:
All Sand



Tube #2:
**Sand and
Little Soil**



Tube #3:
**Sand and
Middle Soil**



Tube #4:
**Sand and
High Soil**

Questions:

1. From quickest to longest, list the order of tubes for water to clear up.
2. Describe how the sediments sort themselves as they settle in the tubes bottoms.
3. What is the relationship between sediment particle size and amount of time they remain suspended in water?
4. Which tube has the best water for the river? Explain why you think this.
5. Explain why soil erosion is bad for the Illinois River.
6. What might be an important goal for cleaning the Illinois River?