Names:

Sediment Sticks: A Model of a River System

Purpose: To observe and classify sediments.

**Part I: Looking at a river bed or lake bottom**

* Gently shake the sedimentator to loosen the sediments. Then lay it on its side.
* Observe the water and sediments up close at eyelevel.
* Repeat steps 1 and 2 and then answer the questions.

1. What happens to the sediments floating in the water?
2. Where else, besides a river or lake are sediments deposited?
3. Draw what you see. Show the different sizes of the sediments and any layering.

**Part II: Looking at the flow of the river**

* Pick up the sedimentator and slightly tilt it up and down very slowly. Continue to do this noticing the effect that moving water has on the sediments.

4. Which sediment size floats in the moving water?

5. Which sediments move along the bottom?

6. Describe how the largest sediment move.

7. What will happen to the shape of these large pieces if the water continues to move them down a stream or river?

8. What type of weathering is this?

9. What are sediments and how are they formed?

10. How are sediments moved from one place to another?

What is this process called?

**Part III: Looking at sediments settling from a river**

* Gently shake the sedimentator to loosen the sediments. Stand the sedimentator upright on one end, then flip it over so that it stands up on the other end.
* Observe the water and the sediments for a few minutes. Repeat the first two steps.

1. What pattern did you observe each time you flipped the sedimentator?

2. What causes the sediments to settle the way they do?

3. Where along a river do sediments settle?

4. What would happen if you left the sedimentator upright over night?

**Part IV: Looking at sediments that form rocks**

* Leave the sedimentator standing upright on one end.
* Draw a diagram of what you see below.
* Label the sediments in your diagram as gravel, sand, and silt or clay. (largest, medium and smallest)

1. Which sediments are most closely packed together?

2. Which sediment size has the largest pore spaces?

3. Which sediments would most likely be compacted and cemented to form sedimentary rock?