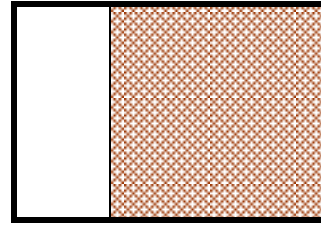


Stream Tray Activity

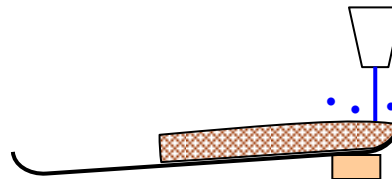
Fill 3/4 of a cafeteria tray with wet sand.



Place the tray in a plastic tub and elevate the sandy end by placing it on a small wood block.



Punch a hole in the bottom of a foam cup using the business end of a ball-point pen. Hold the cup above the high end of the sand tray.



Pour water into the cup and let the water drain out the bottom onto the sand. The water will form a small stream.

Where does the stream erode substrate?

Where does the stream deposit sediment?

How can you change the discharge of the stream?

Where do erosion and deposition occur when the stream's discharge changes?

- Dry spell:

- Flood:

Has your stream created an alluvial fan?

If so, describe the fan.

Has your stream created a delta? (If not, determine what conditions must be present to form one and set them up.)

Now that your stream has created a delta, describe the delta.

Does the delta change with time? In what ways does it change?

Has your stream developed a meander? (If not, arrange the necessary conditions.)

Does the meander change with time? In what ways does it change?

How does the stream respond to changes in the slope of the tray?

Can you find conditions to make a braided stream? What are they?

Can you find conditions to make a V-shaped valley? What are they?

When you are done, carefully drain as much of the water away from the sand as you can. Collect the water in a bucket. Place the damp sand in a tub to dry. Remove all the sand from your tray and plastic tub before washing them. Do not allow any sand into the sink! Wash, rinse, and drain your tray and tub.