

Teacher Directions: Modeling Erosion and Deposition at Ocean Margins



Activity set up

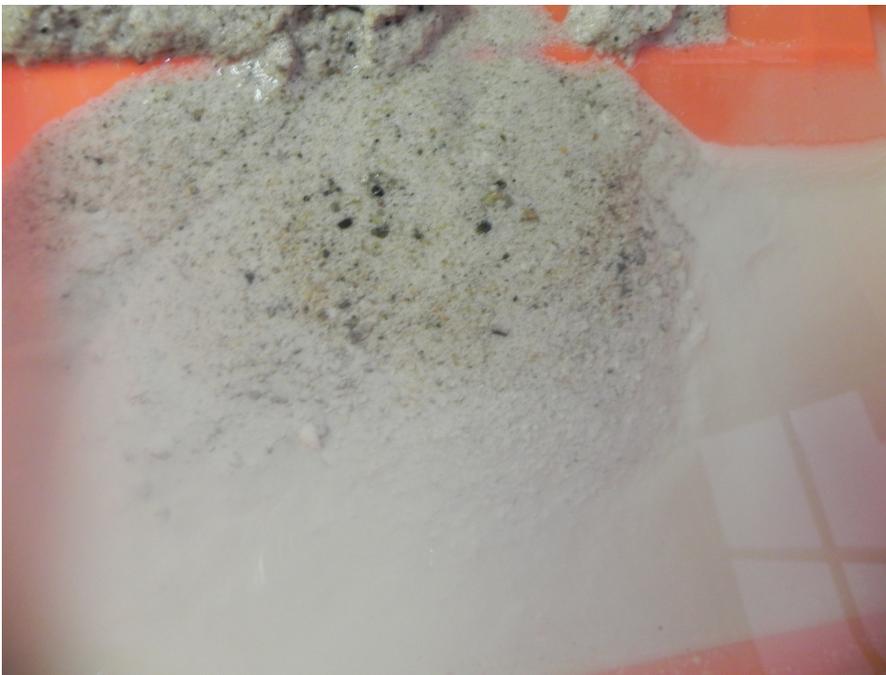
You can place a more curved channel in the sediment than I have done here. Build up sediment on both sides of the channel so you can model a valley and have the water enter the “ocean” at one point only. The back of the tray is raised about 3 inches. You can either let the students mix the sediments together or mix up a bucket full yourself. The only tricky part is adding just the right amount of water to give the sediment mixture a cement-like consistency. You don’t want it too runny.



I poured 1.5 quarts of water from a 16 oz. measuring cup to produce the delta/deposition you see in these images. Have to be careful not to pour too fast. Water gets cloudy from the flour. I had to keep pushing sediment into the channel so deposition could continue at a faster pace.



Some larger particles (tiny dark sand grains) are at the mouth of the delta. Much of the delta is made up of the craft sand. The flour is deposited only on the last quarter of the delta and also has spread over the entire “ocean bottom.” You have to let it sit overnight to see this kind of detail.



Close up of the delta that formed. Students can take sediment samples with a straw and prove to themselves what the different particle sizes are as they move away from the mouth of the “river.”