

Evolution of the Earth
Kirkwood Community College
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Instructor's Notes for Lab Activity of Sedimentary Environments

Materials Needed:

Instructors will need to modify this lab to fit what materials that they have available. This lab does require some time for setting up and for clean-up. It is designed for a two hour lab period that includes a brief lecture on sedimentary environments. Please feel free to make adjustments.

Here is what I have used in my lab set-up.

- Sets of sieves – 1 set for every two or three students.
- 1 dissecting microscope for each station
- Newspaper to help make clean up easier
- 1 digital scale per station
- 1 plastic Petri dish for each station
- 1 weighing paper or plastic weighing boat per station
(a coffee filter works well too)

- 1 black beach sand sample
- 1 loess sample
- 1 till sample
- 1 river sand sample

(Note: These sediment samples can be either gathered from local environments or purchased cheaply from a catalog. You can split the samples if you more groups than four.)

Rock samples representing mud cracks, cross bedding, and ripple marks. This part of the lab could be modified to fit the materials that you have available.

For the last part, I set out a few stations that might include a specimen of limestone, sandstone, siltstone, shale, or conglomerate along with a couple of fossils that might be found in a particular marine environment. This should be simplified a bit, since for true depositional environments it gets very difficult to interpret with little data.