

“I’d Like to Make a Deposit”

Introduction: Investigate what students know about the land that’s under their feet. (Students should have an understanding of the rock cycle). If weather permits, go outside and allow them 10 minutes to sample the soil/rocks in your area. As a group, have them hypothesize how it was formed or how it got there.

Materials: garden trowels, containers for soil/rocks

Mini-lab – How is soil deposited?

Materials: Large mouth jars with lids (1 per group) superfine sand (I like the colored stuff from craft stores so it shows up!), medium gravel, fine gravel, soil, and material collected from intro, water and whatever else you’d like to add.

1. Add materials to their jar in any order. Do not fill it more than about ½ full. Add water to fill it ¾ full. Answer the preliminary questions. Add lid and tighten. Shake for a minute or more. Set jar down and answer the final questions.

Preliminary questions:

1. What materials did you add to the jar? In what order? (You can draw a picture or describe it).
2. Do you think the order you put them in the jar will make a difference in their final deposition? Explain

Final Questions:

3. What material settled to the bottom first? Why do you think this occurred?
4. Draw a picture of your final deposition order. You may need to wait a day to do this, so you will want to carefully place your jar where it will not be disturbed.
5. In an area that is more aquatic, what type of material would you expect to find deposited first? Last?

Next: View/Discuss PowerPoint titled “Rock Deposits of Nebraska”

Conclusion Questions found at end of PowerPoint:

What does the term anoxic mean? Is this beneficial or harmful?

Has Nebraska always been landlocked? Explain what type of environment Nebraska has had over time and give evidence of this.

How is deposition related to rock layering?

Completed for fulfillment of History of the Rocks course, Summer 2008, University of Nebraska-Lincoln by Dr. Tracy Frank.