

How Soil Is Formed Worksheet

Data Table

Part 1 Soil Observation	
Part 2 Rock Observation	
Part 3 Water Erosion	
Part 4 Geological Changes	
Part 5 Glacial Changes	

Part 6 Ice Expansion	
Part 7 Expansion and Contraction Effects	
Part 8 Chemical Processes	
Part 9 Organic Processes	

How Soil Is Formed Post-Lab Questions

Part 1. Soil Observation

1. How would you describe the local soil sample (clay, sand, topsoil, etc.)?
2. Was there any evidence of once living material found in the soil sample? Explain.

Part 2. Rock Observation

1. Were any rock fragments found in the soil?
2. If so, how are the rocks different than the soil?

Part 3. Water Erosion

1. How did the “raindrops” simulation affect the soil sample?
2. How did the “rill” simulation affect the soil sample?
3. How did the “gully” simulation affect the soil sample?

Part 4. Geological Changes

1. What happened to the two rocks as they were rubbed together?
2. What could this possibly be simulating?

Part 5. Glacial Changes

1. What happened to the surface of the ice cube?
2. Describe what happened to the surface of the Styrofoam tray.
3. Predict what would happen if a glacier moved across the surface of land.

Part 6. Ice Expansion

1. Explain what happened to the glass vial.

2. Give an everyday example of ice expansion.

Part 7. Expansion and Contraction Effects

1. Judging from the heating and rapid cooling of the glass vial in this procedure, what do you think happens to rocks as they are heated and cooled?

Part 8. Chemical Processes

1. What happened when water was placed on the homemade rock?

2. What happened when vinegar was placed on the homemade rock?

3. Vinegar is an acidic solution. Using what was learned in this procedure, what effect do you think acid rain has on rocks?

Part 9. Organic Processes

1. How did the growing bean seeds affect the simulated rock in this procedure?

2. Name two everyday or common examples of “organic” soil disruption.