

Name: _____

Date: _____

Trace Evidence: Footwear Impressions Lab

Objective:

To collect and preserve a footwear impression by using plaster of Paris.

Materials:

- 1 cardboard box
- 1 large plastic garbage bag
- 1 empty plastic cup
- Sand/soil
- 1 bag of plaster of Paris
- 1 can of aerosol hair spray (shared with others)
- 1 paint brush
- 1 paint stir stick
- 1 toothbrush

Procedure:

1. Line the cardboard box with the plastic garbage bag.
2. Pour the sand or soil into the bottom of the cardboard box.
3. Using your hand, smooth out the surface of the sand in the cardboard box.
4. Step firmly into the sand. DO NOT rock your foot back and forth. Gently remove your foot from the sand by lifting straight up. View your impression. If it does not seem to be a good impression, smooth out the sand and repeat the process.
5. Hold the hairspray can 12 inches above the impression and spray. If you hold the can too close, the spray will destroy your impression. Spray the entire area of the impression, along with the inch of sand that surrounds the impression. (The sand will look wet.)
6. Fill the empty plastic cup halfway with tap water.
7. Slowly add the plaster of Paris to the water in the cup. DO NOT dump the plaster into the water all at once. Stir continuously as the plaster is being added to the water.
8. Stir until your plaster mixture has a smooth consistency, similar to pancake batter, and until the plaster is dissolved. DO NOT OVERSTIR, since this will cause your plaster to become too thick.
9. Hold the paint stirrer about 1 or 2 inches above the impression. Pour the plaster of Paris over the paint stirrer and onto the impression (this helps to keep the plaster from splashing and collapsing the impression detail).
10. If the impression is small, you will not need to use all of the plaster of Paris. Add enough plaster to cover the impression, but DO NOT overload the impression.
11. Discard the unused plaster in the garbage. DO NOT DUMP PLASTER OF PARIS DOWN THE SINK!
12. Gently smooth the top of the plaster of Paris with the paint stirring stick, distributing the plaster evenly over the impression.
13. Allow the cast to harden for at least 30 minutes. Lifting the cast too early will result in cracking.

