

EAR PRINTS IN FORENSICS

Did you know ear prints can be used in solving crimes? Sometimes criminals leave their ear print at the scene of the crime, often if listening at a window before entering a location. People have ears of all shapes and sizes. While fingerprints are more commonly used to solve crimes, ear prints can help direct investigators toward the correct criminal.

When an ear is pressed against a surface, materials such as waxes and oils are left on the surface. This forms a two-dimension ear print containing specific and individual markers. These prints can be collected as evidence in a manner similar to collecting fingerprints. While it may be possible to tamper with fingerprints, it's very hard to tamper with ear prints.

MAKING AN EAR MOLD

Supplies Needed:

- Cooking Spray
- Plaster of Paris
- Water
- Playdough
- Rulers
- Spoon
- Paper Plate
- Plastic Cup

Reflection:

1. How does your ear mold compare to the other molds from your group? What are the similarities and differences?
2. How could investigators use ear prints in solving crimes?
3. What did you learn from this activity?
1. Using Playdough, create a flat disk larger than the size of your ear.
2. Firmly press the playdough against your ear. Press around the ridges of your ear so the playdough can make a mold of your ear.
3. Remove the playdough and set flat on the paper plate with the ear mold facing up.
4. Lightly spray the mold with cooking spray. Be sure to cover the entire mold.
5. In the plastic cup, mix approximately 2 tablespoons of Plaster of Paris with 1 tablespoon of water with a spoon. Mix until completely combined.
6. Pour Plaster of Paris into ear mold so that the mold is completely covered.
7. Let dry for approximately 15-20 minutes.
8. Gently remove Plaster of Paris from the mold.
9. Complete the Ear Identification Worksheet.

EAR IDENTIFICATION WORKSHEET

1. Measure the length and width of your ear based on the mold you made.

Length _____

Width _____

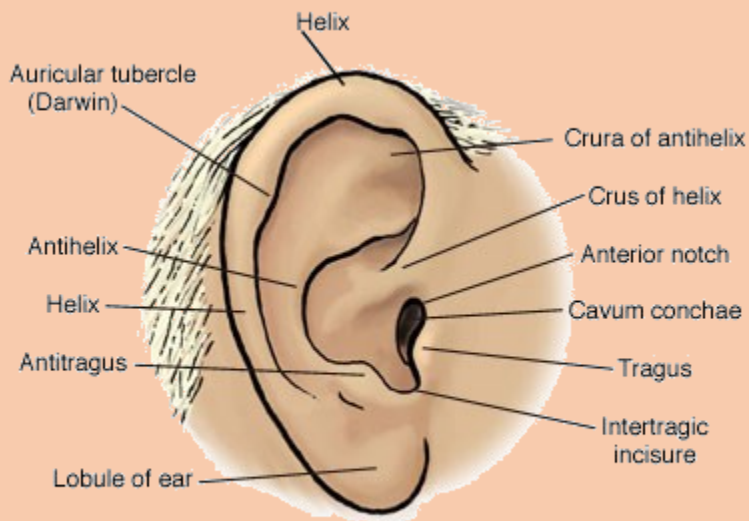
2. How would you describe the following features of your ear mold when comparing to others' ear molds in your group?

Size _____

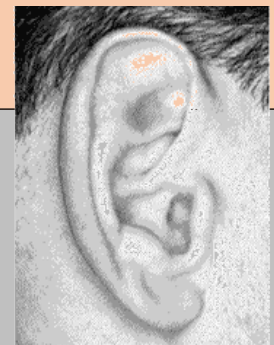
Shape _____

Angle _____

3. Using the parts of the ear listed below, which features distinguish your ear from others' ears.



4. Look at the ear and ear print on the right. What distinguishing ear parts (use terminology from above) are seen in the ear print?



A-2: Photograph of a human ear

5. How can investigators use an ear print to solve a crime?



A-3: Example of ear-print.