

Name: _____

Toolmarking Lab Handout

During this lab, you will be comparing tools and the marks they make. You will conduct visual examinations using your own eyes and then you will create casts to determine if more detailed information can be seen.

Procedure:

- Obtain the three "known" samples and the tools from the teacher. Visually examine the toolmarks. Determine which tool made the mark. Check your answer with the teacher.
- Visually examine the two suspect tool marks. Determine which tool the suspects had in their possession. Record your answers in the chart.
- Visually examine the crime scene sample. Determine which tool was used at the crime scene. Record your answer in the chart.
- Make a cast of the crime scene and suspect samples. Spread your casting material over the wood impression. Using a Popsicle stick, smooth the surface of the casting material. Allow the cast to "set-up." Gently remove the cast from the wooden block.
- Compare the cast with the actual tools. Can you see more detail? Which tool made the impressions? Record your answers in the chart.
- Answer the lab questions.

Lab Data:

	Hammer	Crowbar	Screwdriver
Known #1			
Known #2			
Known #3			
Crime Scene - Visual			
Crime Scene - Cast			
Suspect #1 - Visual			
Suspect #1 - Cast			
Suspect #2 - Visual			
Suspect #2 - Cast			

Lab Questions:

1. List the six steps of the scientific method. Describe how you followed the scientific method in this lab. (6 pts.)
2. Why did you examine the toolmarks visually? (2 pts.)
3. Why did you use casts to examine the toolmarks? What additional information did this provide? (2 pts.)