

## Inquiry Approaches

### Initial Inquiry

What can be classified as evidence?

Any objects that are found at or around the crime scene might be evidence.

What are different ways that evidence can be collected?

Evidence that can be removed from the crime scene can be collected and put into sterilized bags or containers. Evidence that cannot be removed from the crime scene because it will be damaged if moved or because it is too large for transportation can be collected by taking pictures or videos, making drawings, or writing notes.

When investigating a crime scene, why is it important to write down all the details?

To solve a crime and catch the culprit, it is important to gather as much information as possible from the crime scene. Before arriving at a conclusion, investigators do not know which details are important to solve the crime and which ones are not. The crime scene may change as time passes, both from the decomposition and spoiling of bodily samples and from accidental contamination by third parties who arrive at the scene. If some information is missing, then the wrong suspect could be found guilty and the culprit could get away with the crime.

### Experimental Procedure Inquiry

Is it important to analyze the evidence in a particular order?

It is important to look at the crime scene first and gather as much information as possible. Once the evidence is gathered, the order in which it is analyzed should not matter. Eventually all of the evidence will have to be looked at as a whole in order to determine the identity of the criminal.

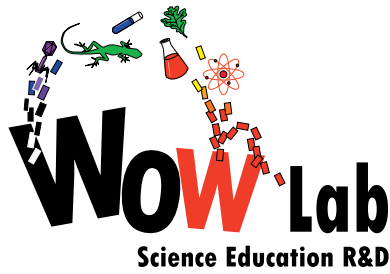
Why is the crime scene blocked off?

Blocking off the crime scene allows only authorized personnel into the area and prevents the area from being contaminated by other individuals. The crime scene must be left undisturbed, otherwise evidence could be tampered with accidentally, leading to false conclusions about the identity of the criminal.

### In-Depth Inquiry

What evidence was useful in determining the identity of the criminal and why?

The fingerprints, cookie crumbs, fibre, teeth marks and note were useful. The fingerprints helped determine who sat where at the table. The cookie crumbs showed that Suspect C ate two different cookies at her spot at the table. The fibre showed that Suspect C sat at the teacher's spot at some point. The teeth marks on the teacher's cup belonged to Suspect C, suggesting that Suspect C sampled the teacher's juice. Analysis of the note showed that it had been written with Suspect C's pen. It may be emphasized that this is only one of many possible explanations, but based on the evidence the most plausible conclusion is that Suspect C ate the teacher's cookie and drank the teacher's juice.



a WOW Lab

**BLUEPRINT**

## Classroom Science Investigation - Inquiry Approaches

What evidence was not necessarily useful in determining the identity of the criminal? Why?

The footprint was not useful in determining the identity of the criminal as it only proved that Suspect B was in the room and did not provide any information about Suspect B's involvement in the crime.

Create a scenario that explains the results from the evidence.

Suspects A and B left the room shortly after the teacher, but Suspect C stayed, explaining that she had to wait for the teacher to return. Once the room was empty, Suspect C realized that she was still hungry, so she took the cookie from the teacher's plate and ate it where she was sitting. After she was done eating, she was thirsty and saw that the teacher's cup was still full, so she drank the teacher's juice. Once she was completely done, she realized what she had done and decided to leave a note for the teacher. She then left the room. Shortly after Suspect C left, Suspect B entered the room and saw that the teacher's snack was finished. He left the room in a hurry because he did not want to get in trouble, but he forgot that there was a paint spill on the floor. He ended up stepping in the paint and then stepping on a piece of paper towel. He heard the teacher walking down the hallway, so he ran away, forgetting to pick up the paper towel.