

High School Science Virtual Learning

Forensic Science Types of Evidence April 16, 2020



High School Applied Biological Science Lesson: April 16, 2020

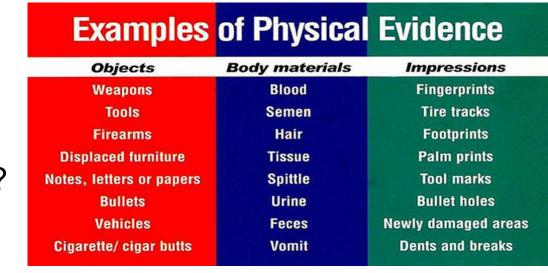
Objective/Learning Target:

Students will be able to distinguish between types of evidence. Students will be able to classify evidence as class or individual.



- Use the chart to the right to answer the following questions
- 1. Which of the examples in the chart would lead investigators to exactly one suspect?

2. Which of the examples would lead to a lot of suspects if found by a crime scene investigator?





1. Fingerprints, Palm Prints, blood, semen, spittle, bullets

2. Tire tracks, dents and breaks, bullet holes, tools, weapons



Lesson Activity:

Directions: Use the following slides to help you understand class and individual evidence. Once you are done reading through the slides, check your knowledge with some comprehension questions.



Locard's Exchange Principle

- Whenever two objects come into contact there is evidence of this interaction through cross-transfer
 - Microscopic transfer (need microscope to see)
 - Macroscopic transfer (can see with naked eye)







Physical Evidence

 Physical evidence: tangible evidence that can be touched, picked up, collected, etc.

Examples of Physical Evidence

Objects	Body materials	Impressions
Weapons	Blood	Fingerprints
Tools	Semen	Tire tracks
Firearms	Hair	Footprints
Displaced furniture	Tissue	Palm prints
Notes, letters or papers	Spittle	Tool marks
Bullets	Urine	Bullet holes
Vehicles	Feces	Newly damaged areas
Cigarette/ cigar butts	Vomit	Dents and breaks



Why is Physical Evidence so Useful?

- It can prove a crime has been committed
- It can help establish the identity of victim or suspect
- It can connect a suspect or victim to the crime scene
- It is more reliable than eyewitness testimony
 - It can support a suspect's or victim's story or...
 - contradict information provided to investigators



Class vs Individual Evidence

There are two categories of physical evidence...

Class Evidence

- Evidence that is not unique to a single person or source
- Can still help to group evidence and narrow down suspect list

Examples:

Individual Evidence

- Evidence unique to one specific person
- Establishes a single source of evidence and contact

Examples:



Practice

Fill in the T-chart on the following slide, indicating which evidence are class evidence and which types are individual evidence. Examples of physical evidence are provided in the chart below.

Objects	Body materials	Impressions
Weapons	Blood	Fingerprints
Tools	Semen	Tire tracks
Firearms	Hair	Footprints
Displaced furniture	Tissue	Palm prints
Notes, letters or papers	Spittle	Tool marks
Bullets	Urine	Bullet holes
Vehicles	Feces	Newly damaged areas
Cigarette/ cigar butts	Vomit	Dents and breaks



Class vs Individual Evidence

CLASS EVIDENCE

INDIVIDUAL EVIDENCE



Class vs Individual Evidence

CLASS EVIDENCE

INDIVIDUAL EVIDENCE

Shoe prints
Tools
Weapons (can be both)
Tire tracks
Bullet holes

DNA
Fingerprints
All body fluids
Blood
Bullets



More Practice

You will use the information from the previous slides to answer the following questions.



More Practice Questions

- 1. Why is it important to find physical evidence at a crime scene (and not just rely on human testimony)?
- 2. What types of evidence are going to be most important, if trying to verify who was at a particular location?
- 3. Is class evidence useful? Explain.
- Give an example of a piece of evidence that can sometimes be class evidence, but sometime individual.



Answer Key

Once you have completed the practice questions check your work

- 1. Why is it important to find physical evidence at a crime scene (and not just rely on human testimony)? Eyewitness accounts are not always 100% reliable. Also, suspects and victims can be dishonest about what occured. Physical evidence cannot be disputed, it is either present or not.
- 2. What types of evidence are going to be most important, if you were trying to verify who was at a particular location? If attempting to verify that a particular person was at a particular location, individual evidence would be best. Usually this would include some type of evidence that contains DNA. Hair root, blood, spit, etc.would all be examples of this.
- 3. Is class evidence useful? Explain. YES!!! It still can help us narrow down our suspect list or rule out certain individuals.
- 4. Give an example of a piece of evidence that can sometimes be class evidence, but sometimes individual. There are many types of evidence that can be both. Sometimes this depends on the actual details of the evidence. For example, a shoe print, if found in mud in PERFECT conditions to leave an impression, could leave details that show individual markings on the bottom of that shoe. Normally, a shoeprint would only be able to tell you the size of the shoe, make, and model of the shoe.



Additional Practice

Study 15 Terms | Forensics Test Two Flashcards