

Use the word banks to help you complete this worksheet as you watch the video.

1. The science of _____ analyzes clues to reconstruct past events.
2. One of the most important types of _____ is found at the tips of our fingers. _____ began over a century ago when scientists discovered that no two people have the same print.
3. Fingerprints are analyzed based on three patterns: _____, _____, and _____.
4. Experts distinguish any two prints by looking for tiny imperfections, such as _____ that end abruptly or ridges that split and form little _____.
5. The traditional method for recovering a print uses _____ and tape. The human touch leaves behind traces of _____ that the powder adheres to and is lifted by the tape. Today some investigators use _____ powder and a high intensity laser light to reveal fingerprints.
6. A carpet _____ may offer valuable clues by linking suspects to specific locations, such as a crime scene.
7. Investigators can make a mold of a _____ that to help them determine what type of tire it was and trace it to a suspect's vehicle.
8. Every cell in the human body contains DNA, which carries _____ information, and looks like a twisted ladder with a series of rungs. People usually leave behind some of their _____ at a crime scene and forensics scientists can gather and analyze DNA evidence. The DNA evidence may _____ a suspect to a crime or _____ that suspect altogether.
9. The FBI considers _____ to be its most valuable tool. Samples are stored in _____, which is a computer database that stores DNA information on suspects.

Word Bank #1

Arch
Black Powder
Cells
CODIS
DNA
Dots
Evidence
Exclude
Fiber
Fingerprinting
Fluorescent
Forensics
Genetic
Link
Loop
Ridges
Sweat
Tire Track
Whorl

10. Scientists can examine a painting to determine if it is real or a _____. Paint can be examined using a _____ to see if the pigments are from the correct time period. Brush _____ and details in the picture can also be examined.

11. _____ provide us with valuable insight into long lost cultures. People in ancient cultures often honored their dead through mummification by _____ the body, or treating it with preservatives. Scientists study the remains by examining human _____ to determine the age, sex, and diet of the person and even how that person died.

12. Investigators can sift through the ashes to determine if the _____ was an accident or crime. When someone sets a fire intentionally, it is called _____ and is often meant to destroy evidence of another crime. Gas _____ can be used to determine what type of accelerant was used. Experts can pull fingerprints from the soot and water, since the fire's _____ actually makes prints stick to many surfaces. Pieces of _____ can reveal if someone broke in before the fire or if the heat broke the glass.

Word Bank #2

Arson
Bones
Chromatography
Embalming
Fire
Forgery
Glass
Intensity
Microscope
Mummies
Strokes

United Streaming: Forensics

Answer Key

1. The science of **forensics** analyzes clues to reconstruct past events.
2. One of the most important types of **evidence** is found at the tips of our fingers. **Fingerprinting** began over a century ago when scientists discovered that no two people have the same print.
3. Fingerprints are analyzed based on three patterns: **loop, arch, and whorl**.
4. Experts distinguish any two prints by looking for tiny imperfections, such as **ridges** that end abruptly or ridges that split and form little **dots**.
5. The traditional method for recovering a print uses **black powder** and tape. The human touch leaves behind traces of **sweat** that the powder adheres to and is lifted by the tape. Today some investigators use **fluorescent** powder and a high intensity laser light to reveal fingerprints.
6. A carpet **fiber** may offer valuable clues by linking suspects to specific locations, such as a crime scene.
7. Investigators can make a mold of a **tire track** that to help them determine what type of tire it was and trace it to a suspect's vehicle.
8. Every cell in the human body contains DNA, which carries **genetic** information, and looks like a twisted ladder with a series of rungs. People usually leave behind some of their **cells** at a crime scene and forensics scientists can gather and analyze DNA evidence. The DNA evidence may **link** a suspect to a crime or **exclude** that suspect altogether.
9. The FBI considers **DNA** to be its most valuable tool. Samples are stored in **CODIS**, which is a computer database that stores DNA information on suspects.
10. Scientists can examine a painting to determine if it is real or a **forgery**. Paint can be examined using a **microscope** to see if the pigments are from the correct time period. Brush **strokes** and details in the picture can also be examined.
11. **Mummies** provide us with valuable insight into long lost cultures. People in ancient cultures often honored their dead through mummification by **embalming** the body, or treating it with preservatives. Scientists study the remains by examining human **bones** to determine the age, sex, and diet of the person and even how that person died.
12. Investigators can sift through the ashes to determine if the **fire** was an accident or crime. When someone sets a fire intentionally, it is called **arson** and is often meant to destroy evidence of another crime. Gas **chromatography** can be used to determine what type of accelerant was used. Experts can pull fingerprints from the soot and water, since the fire's **intensity** actually makes prints stick to many surfaces. Pieces of **glass** can reveal if someone broke in before the fire or if the heat broke the glass.