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.
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.
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.