1. The job of the Forensic Science Unit is to collect ________________ evidence.

2. To document a tire track, it is first ________________ and then ________________ are made using dental cement that is poured into a metal form.

3. Investigators use a high-powered ________________ to trace the path to the victim. The light shines at ________________ that cause materials to fluoresce and ________________ goggles help make evidence stand out sharply.

4. Evidence that is collected at a crime scene is sent to the Department of Law Enforcement and is analyzed by a ________________, who goes through the debris that is collected at a crime scene.

5. ________________ fibers are valuable clues because they can link suspects to a specific location.

6. The tire track expert studies the photographs taken at the crime scene to examine the tread ________________ to determine what kind of vehicle uses that kind of a tire.

7. Tire treads are made up of geometric shapes called ________________. The key to tire identification is to match differences in pitches. They also examine tiny cuts on the surface called ________________ that were molded into the tire by small metal teeth.

8. The final pieces of ________________ needed for an airtight case was obtained by investigators offering a dog bathing service. During the bath, investigators gathered some dog ________________ and also got carpet ________________ from the living room, which matched those found at the crime scenes.

9. Forensic science has become one of the justice system’s most powerful ________________, but can do great harm if they are misused. In one case, hairs from a crime scene lead to the ________________ of an innocent man.

10. Hairs are not distinct enough to be linked to an _________________. They most investigators could ever say are that “hairs could have come from the same ________________”, but can never say that hairs come from a given individual.

Word Bank
- Carpet
- Casts
- Chemist
- Conviction
- Evidence
- Fibers
- Hair
- Individual
- Light
- Orange Pattern
- Photographed
- Physical
- Pitches
- Sites
- Source
- Tools
- Wavelengths
11. To compare hair samples, investigators examine the hair’s __________ to see pigment distribution. Investigators also examine the outer sheath, called the ____________, which grows in overlapping scales. Some hairs have a visible inner shaft, called a ____________. In other hairs, the medulla appears cracked or ____________ or they have no medulla.

12. Each cell in the body contains __________, which is shaped like a twisted ladder with rungs. The sequence of the ____________ is unique for each individual. Scientists can remove DNA from body ____________ and fluids and make it key segments of it visible on x-ray film. The ____________ produced in the films can positively link a suspect to DNA from a crime scene or exclude a suspect. DNA evidence was able to exclude an ex-boyfriend as well as the suspect, which proved his ____________.

13. Forensic scientists and scholars can study a painting to determine if it is ____________ or a forgery. A forensic scientist can try to determine the painting’s age by taking samples of the ____________ and placing them on a microscope slide. Each color is made from a different mineral or vegetable base and gives it a unique appearance under a polarizing light ____________.

14. Investigators can also analyze the ____________, which is a substance that suspends the pigment and allows painters to use it on a canvas. The most common medium is ____________ oil, but Leonardo da Vinci also used ____________ oil.

15. Samples of the canvas can be removed for ____________ to reveal the age of the canvas itself.

16. The test results could not rule out the possibility that the painting was created by Leonardo da Vinci, so the painting’s owner turned to ____________ to help him. The scholars noticed the ____________ in Christ’s wrist, which DaVinci did in his paintings.
United Streaming: The Value of Evidence

1. The job of the Forensic Science Unit is to collect **physical** evidence.

2. To document a tire track, it is first **photographed** and then **casts** are made using dental cement that is poured into a metal form.

3. Investigators use a high-powered **light** to trace the path to the victim. The light shines at **wavelengths** that cause materials to fluoresce and **orange** goggles help make evidence stand out sharply.

4. Evidence that is collected at a crime scene is sent to the Department of Law Enforcement and is analyzed by a **chemist**, who goes through the debris that is collected at a crime scene.

5. **Carpet** fibers are valuable clues because they can link suspects to a specific location.

6. The tire track expert studies the photographs taken at the crime scene to examine the tread **patterns** to determine what kind of vehicle uses that kind of a tire.

7. Tire treads are made up of geometric shapes called **pitches**. The key to tire identification is to match differences in pitches. They also examine tiny cuts on the surface called **sites** that were molded into the tire by small metal teeth.

8. The final pieces of **evidence** investigators needed for an airtight case was obtained by investigators offering a dog washing service. During the bath, investigators gather some dog **hairs** and also get carpet **fibers** from the living room, which matched those found at the crime scenes.

9. Forensic science has become one of the justice system’s most powerful **tools**, but can do great harm if they are misused. In one case, hairs from a crime scene lead to the **conviction** of an innocent man.

10. Hairs are not distinct enough to be linked to an **individual**. They most investigators could ever say are that “hairs could have come from the same **source**”, but can never say that hairs come from a given individual.

11. To compare hair samples, investigators examine the hair’s **color** to see pigment distribution. Investigators also examine the outer sheath, called the **cuticle**, which grows in overlapping scales. Some hairs have a visible inner shaft, called a **medulla**. In other hairs, the medulla appears cracked or **broken** or they have no medulla.

12. Each cell in the body contains **DNA**, which is shaped like a twisted ladder with rungs. The sequence of the **rungs** is unique for each individual. Scientists can remove DNA from body **tissues** and fluids and make it key segments of it visible on x-ray film. The **patterns** produced in the films can positively link a suspect to DNA from a crime scene or exclude a suspect. DNA evidence was able to exclude an ex-boyfriend as well as the suspect, which proved his **innocence**.

13. Forensic scientists and scholars can study a painting to determine if it is **authentic** or a forgery. A forensic scientist can try to determine the painting’s age by taking samples of the **paint** and placing them on a microscope slide. Each color is made from a different mineral or vegetable base and gives it a unique appearance under a polarizing light **microscope**.

14. Investigators can also analyze the **medium**, which is a substance that suspends the pigment and allows painters to use it on a canvas. The most common medium is **linseed** oil, but Leonardo da Vinci also used **walnut** oil.

15. Samples of the canvas can be removed for **carbon dating** to reveal the age of the canvas itself.

16. The test results could not rule out the possibility that the painting was created by Leonardo da Vinci, so the painting’s owner turned to **scholars** to help him. The scholars noticed the **holes** in Christ’s wrist, which DaVinci did in his paintings.