Please use the following numbered scale to indicate your confidence in your knowledge of topics in **Unit 1: DNA Evidence**.

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| --- | --- |
| **4** | **I understand the material so well I can teach it to others** |
| **3** | **I feel confident I fully understand the material** |
| **2** | **I get the idea, but I feel there is more to learn** |
| **1** | **This is a totally new concept for me** |

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|  | **CONCEPT:** | **DATE** | **DATE** | **DATE** |
| **(PRE)** | **(MID)** | **(POST)** |
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| 1. | I am able to describe the structure of DNA:   * Identify the 3 subparts that make up a nucleotide * Identify the 4 nitrogen bases and which match up * Shape of DNA |  |  |  |
| 2. | I am able to identify where DNA can be found in:   * An animal cell * In a human body |  |  |  |
| 3. | I am able to differentiate between nuclear DNA and mitochondrial DNA in terms of:   * How each is inherited * Where it is found in a cell * Uniqueness of the DNA * Pros and cons of each when used in a forensic investigation |  |  |  |
| 4. | I am able to explain how the following processes work to help make a DNA fingerprint:   * Restriction enzymes * Gel electrophoresis * PCR * Molecular DNA probes |  |  |  |
| 5. | I am able to analyze a DNA fingerprint to identify the following matches:   * Crime scene sample to victim or suspect sample * Child sample to child’s biological mother or father |  |  |  |
| 6. | I am able to identify a percentage that represents the high probability of a DNA match between known and control DNA fingerprint samples. |  |  |  |
| 7. | I am able to explain the purpose of CODIS and identify whose DNA is collected in the database. |  |  |  |
|  | **CONCEPT:** | **DATE** | **DATE** | **DATE** |
| **(PRE)** | **(MID)** | **(POST)** |
|  |  |  |
| 8. | I am able to carry out the following laboratory skills:   * Extract DNA from strawberry and human cells * Correctly set the measurements for a micropipettor and dispense liquids * Use a microcentrifuge * Use a gel electrophoresis chamber * Identify and measure DNA bands in a gel |  |  |  |
| 9. | I am able to describe what happened as it relates to DNA testing in the following cases:   * 1st use of DNA fingerprinting in a murder * Anastasia Romanov and her family * Identical twin cases * OJ Simpson murder case |  |  |  |