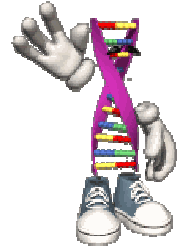


Name _____

Period _____

Forensic Geneticist's Research Worksheet

Using the websites, answer the following questions as completely as possible.



An Introduction to DNA

1. For what does DNA code?
2. How many base pairs differ from person to person?
3. What percent of your DNA doesn't code for any protein?
4. Define "length polymorphisms" and "variable number tandem repeats" (VNTRs).
5. From whom do you inherit copies of your chromosomes?

Creating a DNA Profile: Step by Step

1. From where can scientists isolate DNA samples?
2. How is the DNA cut into short, manageable fragments?
3. Explain how DNA fragments are sorted by size.
4. Looking at the DNA fingerprint from a sexual assault case, do you think one of the suspects committed the crime? If yes, which one?

Using DNA Evidence

1. List the six different ways DNA has and can be used to answer questions and solve problems.

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DNA Detective

If you need to install Shockwave, then ask for your teacher's help, and install it!

Work through the animation on "How to Make a DNA Fingerprint." Then answer the following questions.

1. Who was the first to coin the term "DNA fingerprinting?"
2. What type of gel is used in electrophoresis?
3. What type of probe is used to make the DNA fingerprint easy to see?

Work through the next two animations – Murder/Rape case and Paternity case. Then answer the following questions.

1. What was the chance of another person having the same DNA fingerprint as Jones?
2. The murder at Rodman Dam was significant because it was the first case to what?
3. Even though tests could prove that Christiana and Andrew were related, what could they not prove?
4. Why was the case complicated, and how did Jeffreys deal with the complication?
5. What did the Home Office do when presented with the results of the DNA testing?

