**DNA Fingerprinting Name: \_\_\_\_\_\_\_ Advisory: \_\_\_**

Direct link:[http://www.pbs.org/wgbh/nova/teachers/body/create-dna-fingerprint.html.](http://www.pbs.org/wgbh/nova/teachers/body/create-dna-fingerprint.html)You can also search for this using google by searching for "create a dna fingerprint".

Objective: Students will learn the steps of DNA fingerprinting by creating a fingerprint in a virtual lab. They will use this fingerprint to solve a virtual crime. The virtual lab is interactive and goes through the step-by-step process of DNA fingerprinting.

1. What crime was committed?

2. Who are the suspects?

**Creating a DNA Fingerprint**

3. What is Step 1?

4. What does a restriction enzyme do to DNA?

5. What is Step 2?

6. Describe agarose:

7. What is Step 3?

8. What is Step 4?

9. What is electrophoresis?

10. Which fragments of DNA will move the farthest?

11. What is Step 5?

12. What is the purpose of the nylon membrane?

13. What is Step 6?

14. How are the probes labeled?

15. What is Step 7?

16. Analyze the DNA. Which one of the suspects is the culprit?

**Site 2: Go to www.crimtrac.gov.au/dna**

17. What is CrimTrac and the NCIDD?

18. What use is DNA to CrimTrac?

19. Does this site show any bias? Explain your answer.

20. How many profiles were added in 2014-2015? Should all newborns be added to the database? Explain your answer.