

DNA FINGERPRINTING SIMULATION

1. The DNA strand labelled “**B**” was taken from blood cells left by a perpetrator at a crime scene. The DNA strands labelled “**S1**” and “**S2**” are from hair samples taken from two different suspects.
2. Cut each DNA strand into fragments (RFLP’s). Imagine restriction enzymes performing this.
3. Place the RFLP’s from each strand in their own column on a piece of lined or graph paper (represents gel electrophoresis) from largest to smallest fragment. Place all RFLP’s of the same size at the same level on the page.
4. Using a coloured pencil or marker, shade or somehow mark the 1st, 3rd, and 4th RFLP in each column to represent the fact that these fragments have now been exposed to radioactive probes that make them show up as bands on an xray film.
5. Tape all RFLP’s onto your page and provide a heading for each column (Blood, Suspect 1, Suspect 2). Label the location of the largest and smallest fragments. Assuming your entire page represents the gel, label where the positive and the negative charge should be.
6. Decide which suspect left the blood at the crime scene. Answer = \_\_\_\_\_

----- CUT STRANDS BELOW -----

B	B	B	B
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S2	S2	S2	S2
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S1	S1	S1	S1
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