**DNA Extraction Lab Name:**

**Materials and Equipment**:

* A quarter of a banana
* 50ml water
* 1 tablespoon detergent
* ¾ tablespoon of salt
* ethanol
* zip loc bag
* measuring cylinder
* 55°C water bath
* ice
* funnel and filter paper to fit
* glass rod

**Procedure**

1. Store ethanol on ice.
2. Mash banana in the zip loc bag.
3. Add salt and 10 ml of water to the bag, mash until liquid turns white.
4. Add detergent and 40ml of water to the solution, mix well.
5. Filter the solution through the filter paper in the funnel and allow it to collect in a measuring cylinder.
6. Pour 5ml of the collected solution into a test tube and place in a 55°C water bath for 10 minutes.
7. Remove test tube from water bath and place in ice water for 10 minutes.
8. Pour 5 ml cold ethanol into the experiment test tube.
9. Swirl the liquid.
10. Observe a change in the solution.
11. Use the glass rod to remove the transparent ‘blob’ of DNA

**Purpose:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Materials:** As per page 1

**Procedure:** As per page 1

**Observations:**

 **Title:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| Banana mixed with salt and water and soap  |  |
| DNA blob  |  |

**Analysis of the procedure**

1. Why is it necessary to mash the banana?

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**Apply**

1. What is an organelle?

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1. What is the function of the nucleus? What is the function nucleolus?

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1. Describe how bases pair up in the DNA molecule.

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1. What is the difference between a chromosome and chromatin?

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1. How many chromosomes does a human body cell contain?

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1. Your retina cells and muscle cells contain identical DNA. How are these cells able to function differently?

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