Extracting DNA from a Banana

Prepared by: Besir Zeneli, BSc. in Biology

Extracting DNA from a Banana at Home

A simple experiment using household materials

Materials Needed

List:

- 1/2 ripe banana
- Water
- Dish soap or liquid soap
- Cold alcohol (ethanol or rubbing alcohol)
- Sieve, coffee filter, or tissue
- Spoon or pestle
- Transparent glass or test tube
- Stick for collecting DNA

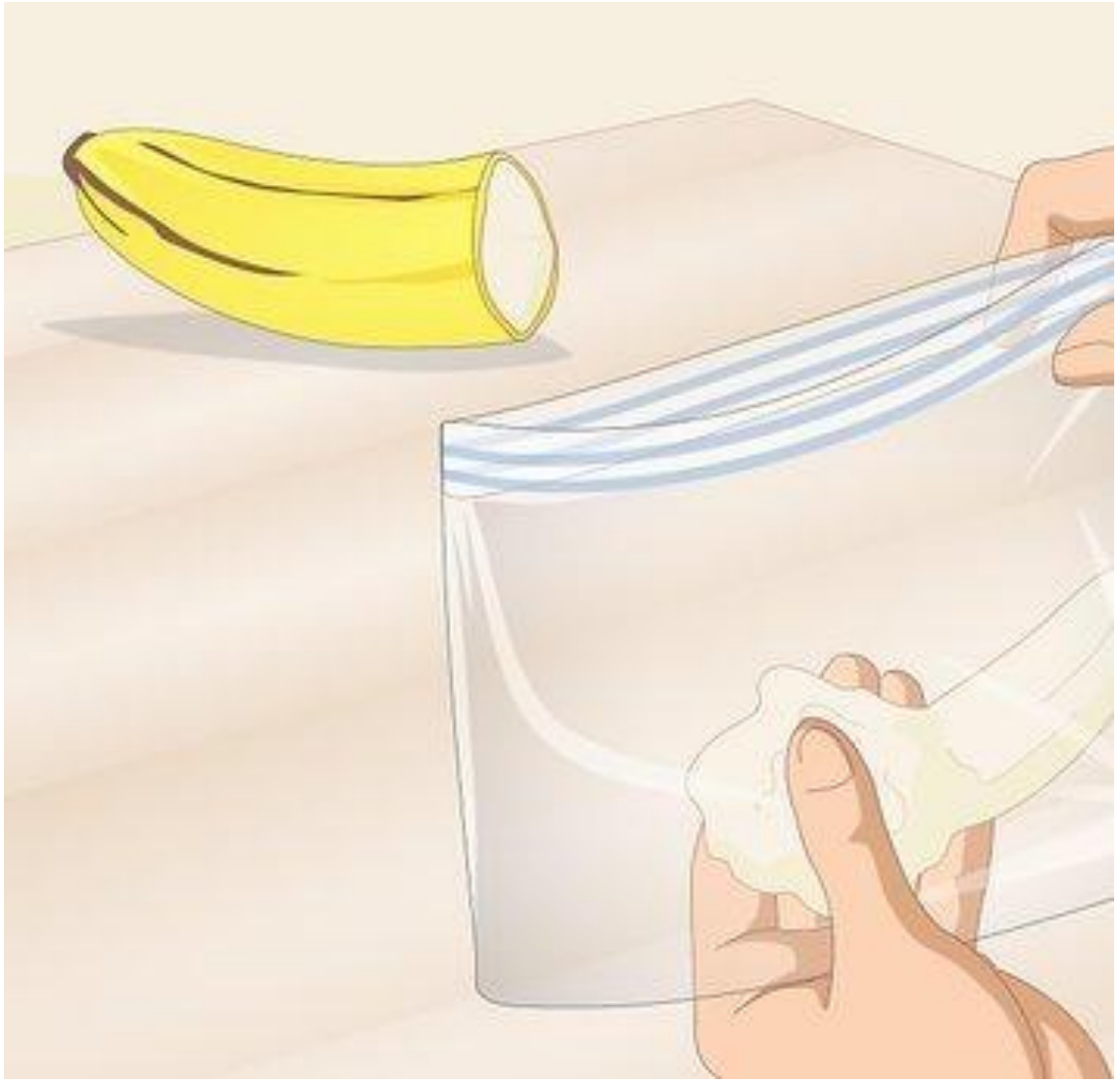
Step 1 - Chop the Banana

Peel and finely chop **half a banana**. Place it into a cup for mashing.

Step 2 - Mash the Banana

Use a spoon or pestle to mash the banana into a smooth paste.

Alternatively, you can use **plastic resealable freezer bag**.

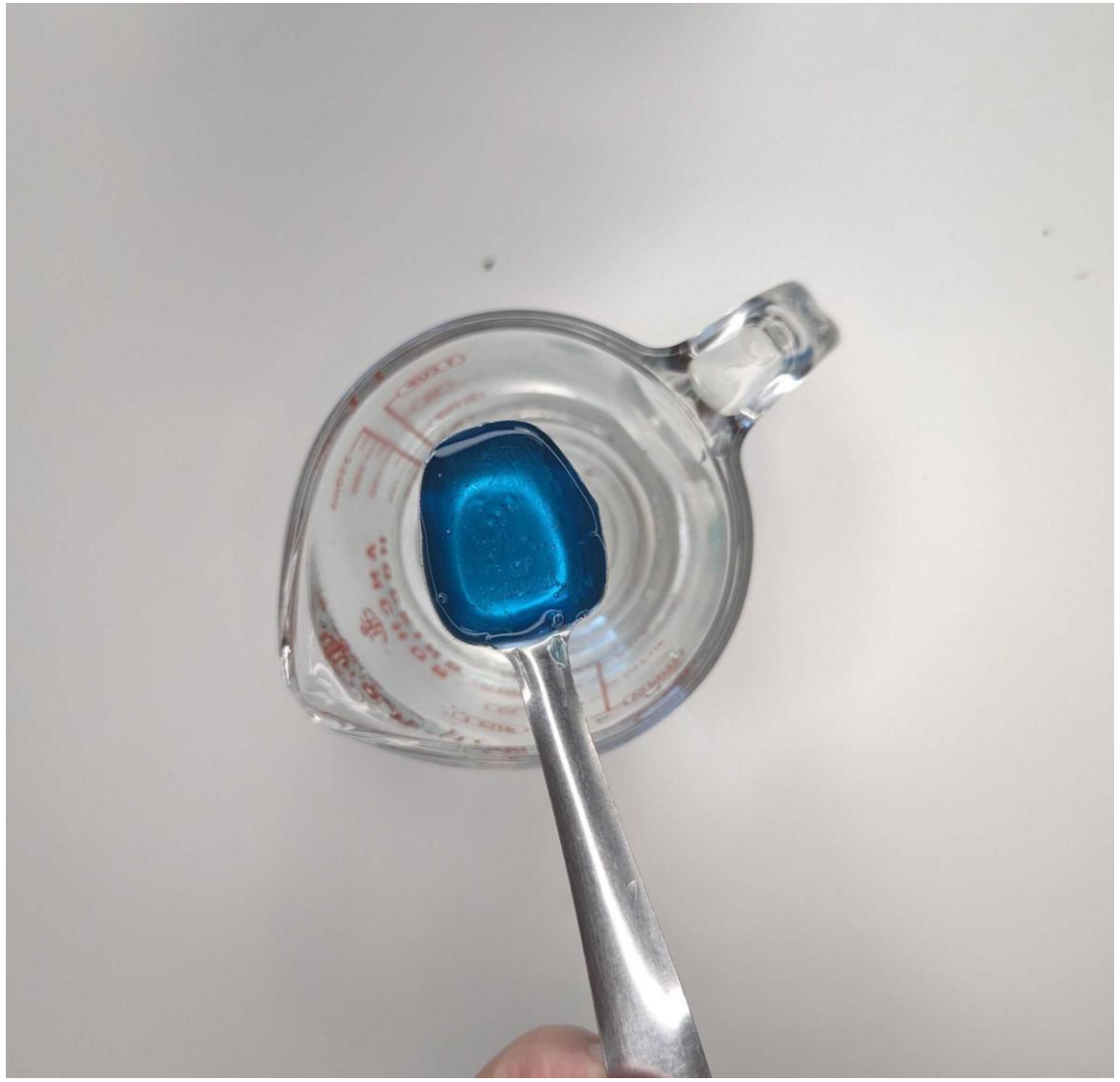


Step 3 - Prepare Lysis Solution

Lysis refers to the breaking down or destruction of cells, typically by the rupture of the cell membrane.

In another cup, mix 1 teaspoon of dish soap with 10 tablespoons of water.

This is called a lysis solution. Its function is to break the cell membrane of the cells.



Step 4 - Mix the Lysis Solution

Pour the lysis solution into the mashed banana and stir well for at least 5 minutes.

Step 5 - Filter the Mixture

Strain the mixture using a sieve, coffee filter, or tissue. Collect the liquid in another cup.

Step 6 - Transfer to a Transparent Container

Pour the filtered liquid into a test tube or a tall, thin glass jar.

Step 7 - Extract the DNA

Slowly pour cold alcohol along the side of the container. A white, stringy substance will appear – **this is the DNA.**

Step 8 - Collect the DNA

Use a stick to lift the DNA strands out. Note that this is not pure DNA, as it contains proteins and other materials.

How to do it?

https://www.youtube.com/watch?v=MYBuY5Nvg9s&t=67s