

Activity 3 – DNA Extraction

In this activity, you will be able to extract DNA out of a plant using household ingredients and will be able to see it with your naked eye.

Materials:

- ½ onion
- 2 tbsp. dish detergent
- 1 tsp. salt
- ½ cup of water
- 1 coffee filter
- ¼ cup Ice-cold alcohol
- Immersion blender
- Plastic cup
- Paper towel
- Paper clip
- Spoon
- Ice

Procedure:

1. Peel the onion half and put it in a container. With the help of an immersion blender, smash the onion as best as you can.
2. In a plastic cup, mix together 2 tbsp. detergent, 1 tsp. salt and ½ cup of water. This will be your DNA extraction liquid.
3. Add your extraction liquid to the smashed onion and mix gently with a spoon to avoid making bubbles. This will help breaking the cells to release the DNA.
4. Using a coffee filter, pour the mixture into a clean plastic cup. Gently squeeze the filter.
5. Slowly, pour the ¼ cup of cold alcohol down the side of the cup. Do not mix! Let sit for a couple of minutes. The alcohol will help separate the DNA from the rest of the onion mixture.
6. You will see something white forming in between the alcohol and the onion mixture.

That's the onion's DNA! With the use of a paperclip, gently pick up the strands of DNA.