

Strawberry DNA Extraction



Is there DNA in my food? Absolutely! All living things have DNA-Deoxyribonucleic acid- the chemical instruction on how to make that living thing. This incredible chemical molecule can be easily seen with the naked eye when collected from thousands of cells. This simple method quickly gives some visible proof that plants have DNA.

MATERIALS:

Strawberries

Zip-closure sandwich bags

DNA extracting solution (mix about 1 cup of dish detergent and $\frac{1}{4}$ cup salt into a gallon of water)

Funnels

Plastic cups

Gauze or cheesecloth

Test tubes

Droppers

Denatured alcohol

Paper towels

PROCEDURE:

1. Place a strawberry in a zip-closure bag and remove most of the air before you seal the bag.
2. Mash the strawberry through the bag in your hand. Do not hit against the table.
3. Add 2 Tablespoons of the DNA extracting solution.
4. Continue mixing and mashing the bag in your hand.
5. Place a piece of gauze over the large opening of the funnel.
6. Place funnel in a plastic cup. It should sit on the rim.
7. Carefully pour the strawberry mixture into the funnel making sure to catch the solids with the gauze.
8. Take a dropper full of the liquid in the cup and place in the test tube.
9. Add a dropper full of the alcohol to the test tube. Take care not to tilt or tip the test tube; do not mix the two liquids.
10. Observe the line between the strawberry mixture and the alcohol. You will notice a white thread-like cloud appearing at this line. This is strawberry DNA. The DNA will clump together and float to the top of the alcohol layer.
11. Observe the test tubes of others around you. Do you notice any differences?
12. When finished observing the DNA, you may collect the DNA and place into a small tube to take with you.



Source: Saint Louis Science Center