

# DNA Extraction from Strawberries (Grades 5-12)

## Objective

Use household material to extract DNA from fruit.

## Materials

- Rubbing alcohol
- Dish soap
- Salt
- Zip bags
- Strawberries

## Preparation

1. Chill the rubbing alcohol in the freezer for at least 30 minutes before the experiment.
2. Mix the extraction solution: Combine water, dish soap, and salt in a cup. Stir gently.

## Instructions

1. Remove green leaves and place the strawberry into a plastic bag.
2. Seal the bag and gently mash the strawberry for 2 minutes until pulpy.
3. Add 2 tablespoons of the prepared solution into the bag.
4. Seal and gently mix for another minute. This breaks cell walls and releases DNA.
5. Place a coffee filter or cheesecloth over the plastic cup (use a funnel if available).
6. Slowly pour the mixture into the filter.
7. Let it drip for 5–10 minutes until clear liquid collects in the cup.
8. Slowly pour cold rubbing alcohol down the side of the cup (equal to the filtered liquid amount).
9. Do **not** mix; let it sit for 1 minute.
10. You'll see white, stringy clumps form between the alcohol and strawberry layer—this is DNA!
11. Use a wooden skewer to spool and lift the DNA out.