



HOW TO EXTRACT DNA FROM A STRAWBERRY

Materials required per group:

- > 1 re-sealable zip lock bag
- > 2 strawberries (fresh or frozen)
not provided
- > 2 tsp dish detergent
- > 1 tsp salt
- > 1/2 cup water
- > 2 plastic cups
- > 1 piece of dish cloth
- > 2 tsp hand sanitiser
- > 1 toothpick

Instructions:

1. Split into 5 groups. Pull off any green leaves on the strawberry that have not been removed yet.
2. Put the strawberries into the zip lock bag, seal it and squish it for about 2 minutes. Completely crush the strawberries. This starts to break open the cells and release the DNA.
3. In a plastic cup, make your DNA extraction liquid: mix together 1 teaspoons of detergent, 1/2 teaspoon of salt and 3 teaspoons of water.
4. Add 2 teaspoons of the DNA extraction liquid into the bag with the strawberries. This will further break open the cells.
5. Reseal the bag and gently smash for another minute (avoid making too many soap bubbles).
6. Place the piece of dish cloth filter inside the other plastic cup.
7. Open the bag and pour the strawberry liquid into the filter. You can twist the filter just above the liquid and gently squeeze the

remaining liquid into the cup. You want about 2 teaspoons of liquid.

8. Next, pour down the side of the cup 2 teaspoons of hand sanitiser. Do not mix or stir. You have just isolated the DNA from the rest of the material contained in the cells of the strawberry.

9. Within a few seconds, watch for the development of a white cloudy substance (DNA) in the top layer above the strawberry extract layer.

10. Tilt the cup and pick up the DNA strands using a toothpick. What does the DNA look like? Is it what you expected?

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