

DO YOU KNOW WHAT DNA LOOKS LIKE?



OPCW

#ScienceforDiplomats DNA Extraction Kit

Your kit contains:

- ❖ Strawberry in a plastic zipper bag
- ❖ 50 ml Falcon Tube
- ❖ Coffee filter
- ❖ A tube containing 20 ml of "DNA Extraction Solution"
- ❖ A vial containing 15 ml of 96% isopropyl alcohol
- ❖ Plastic pipette
- ❖ Eppendorf Tube (In case you'd like to take your DNA home with you!)



Plastic zipper bag
containing strawberry

Falcon Tube

Coffee filter

DNA
Extraction Solution



96%
isopropyl alcohol

Pipette

Eppendorf Tube



DNA Extraction Solution:

Mix the following ingredients to prepare 1 litre of DNA Extraction solution (enough for 100 extractions)

- ❖ 100 ml of dish washing detergent
- ❖ 15 g of table salt
- ❖ 900 ml of water

DNA is like a set of "instructions"!

Here is your chance to see what the instructions for a strawberry look like!

Step 1

Start off by gently crushing the strawberry in the zipper bag. Push your fingers against the table surface to turn the strawberry into a pulp. This breaks open the cells.



Step 2

Pour the DNA extraction solution into the zipper bag containing the strawberry pulp. This breaks down the cell membranes and extracts the DNA into the solution. Gently swish the mixture around, try to minimize the amount of foam that forms.



Step 3

Use the coffee filter as a funnel in the 50 ml Falcon Tube. Fold the filter appropriately so that it is fully inserted into the tube.



Step 4

Slowly pour the content of the bag into the coffee filter funnel. Don't pour in too much solution at once to avoid overflow and spillage!



Step 5

Remove the coffee filter with the remaining strawberry cell debris. Pour 20 ml of 96% isopropyl alcohol into the 50 ml Falcon Tube. Observe what happens at the interface of the alcohol and strawberry DNA extract solution.



Step 6

The whitish, gooey, stringy, bubbly stuff you see is strawberry DNA! The DNA can be collected with the pipette and transferred to an Eppendorf Tube if you wish to take it home.

