



## \* Strawberry DNA\*

### Family Activity - Science



#### **Description:**

DNA is a fascinating subject. Kids love learning about the “map” that helps build organisms. But usually, we can’t see DNA except with a high-powered microscope. Have you ever seen a DNA model?

With this strawberry DNA extraction science experiment, you can encourage the DNA strands to release from their cells and bind together into a format that’s visible with the naked eye.

#### **Materials:**

- Coffee filters
- Pipette
- Test tube

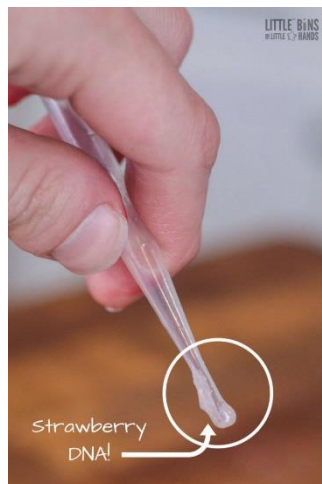
- Strawberries
- Dish Soap
- Salt
- Plastic Zipper Baggies
- Rubbing Alcohol

### Note/Tip:

- You can use any fruit, but strawberry is the easiest to see the DNA.

### Instructions:

- Chill the alcohol in the freezer.
- Remove the green stems from the strawberries and add to the bag. Squish the strawberries into a pulp.
- Add 1 tablespoon of dish soap, a teaspoon of salt, and 1/3 of a cup of water to the bag. Mix.
- Line the test tube with the coffee filter.
- Pour the strawberry liquid into the test tube. Wait for the liquid to filter into the test tube.
- Add an inch layer of cold alcohol to the test tube.
- Watch as a clear viscous material rises to the top of the alcohol. This is the strawberry DNA!



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## **Science of DNA:**

### **Extracting Strawberry DNA**

Each individual cell in an organism has a copy of the DNA pattern used to reproduce that cell. Usually, the DNA is combined within the cell, so you can't see it. But when you create a mixture of dish soap and salt and mix it with the strawberry pulp, it helps break down the strawberry cells into individual parts.

Once the alcohol is added to the pulp, it encourages the DNA strands to rise to the top and bind together, where you can see them together in one long, clear strand. It's fascinating to see the DNA strands up close and personal!

### **WHAT EXACTLY IS DNA?**

DNA is what makes you! It's your genetic makeup. DNA is a molecule that is like a little recipe for life and holds all the information your body needs to function. Pretty crazy! Plus, it's just a teeny, tiny percent of our DNA that actually makes us all unique from one another.

Our bodies are made up of a couple of hundred cells and the cells all contain these DNA molecules filled with information. DNA looks like a long thin molecule, but if you were to study it under a microscope you would actually see the classic twist or double helix shape.