

Experiment 1.1: Fruit DNA

Data:

When I added the alcohol to the mixture, it formed a layer on top of the mixture.

As I moved the wooden stirrer in the alcohol layer, a thick liquid started clinging to it.

When I pulled the stirrer out of the alcohol, the thick liquid clinging to the stirrer was clear, and it formed a string that dropped back down into the alcohol. However, some of the thick, clear liquid stayed clinging to the stirrer.

Summary:

In this experiment, I mixed water, dish soap, and a small amount of salt in a glass. Then, I crushed about one-fourth of a banana in a Ziploc bag until it had the consistency of pudding. Then, I added the water/soap/salt mixture to the bag, squeezed out as much air as I could, and then zipped the bag shut. I then kneaded the bag to mix everything together. I then poured the contents of the bag into a strainer that was positioned over an empty glass. The liquid part of the mixture fell into the glass.

I added cold alcohol that had been in a freezer to the top of the liquid in the glass. I then put a bamboo skewer into the alcohol layer and slowly moved it around, looking at what happened. I then pulled the bamboo skewer out of the alcohol to examine what was clinging to it. I did that several times.

Conclusion:

In this experiment, I broke down the cells that were in the banana, releasing the DNA. The DNA ended up in the alcohol layer, which is what I saw clinging to the bamboo skewer.