

“Absorption of Milk by Oreos” Lab

- 1. Purpose (Question/Statement):** Will Oreos with extra stuffing absorb more milk than regular Oreos?
- 2. Hypothesis:** If we dunk a Mega-Stuf, a Double-Stuf, and a regular Oreo into milk for a certain amount of time, then the Mega-Stuf Oreo will absorb the most amount of milk.

3. Materials:

1. 3 Mega-Stuf Oreos
2. 3 Double-Stuf Oreos
3. 3 regular Oreos
4. 4 cartons of milk (250mL)
5. 1 beaker
6. 1 graduated cylinder
7. 1 spoon
8. 1 timer

4. Procedure:

1. Obtain lab materials.
2. Measure 100mL of milk in graduated cylinder.
3. Pour milk into beaker.
4. Drop regular Oreo into milk.
5. Wait 10 seconds.
6. Pick up Oreo with a spoon (don't scoop up milk) and put aside.
7. Pour milk into graduated cylinder.
8. Record change in amount of milk (amount of milk absorbed by the Oreo).
9. Pour out milk.
10. Repeat steps 2-9 with two more regular Oreos.
11. Repeat steps 2-10 with Double-Stuf and Mega-Stuf Oreos.
12. Clean up lab materials.

5. Observations: (Amount of milk absorbed)

	Regular	Double-Stuf	Mega-Stuf
Trial 1	3.5mL	2mL	4mL
Trial 2	4mL	2mL	4mL
Trial 3	7mL	0.5mL	2mL
Average	4.8mL	1.5mL	3mL

6. Analysis:

In all the Oreo trials, the Oreos absorbed similar amounts of milk. The average for the regular Oreos is 5mL, 1.5 mL for the Double-Stuf; and 3mL for the Mega-Stuf. There was no obvious correlation between the amount of stuffing and the amount of milk absorbed - the Double-Stuf held less than the regular Oreos, and the Mega-Stuf held more than the Double Stuf.

7. Conclusion:

Our hypothesis that the Mega-Stuf Oreos would absorb the most milk was proved false. There was no correlation in our data between the amount of stuffing and amount of milk absorbed.

8. Reflection:

We learned that the cream of an Oreo is not very absorptive, and that Mega-Stuf and Double-Stuf Oreos, despite having more “stuf,” are not better than regular Oreos in absorbing milk.

Next time we do this experiment, we will try to have less source of error, by making sure we have enough time. We had to rush our experiment, and as a result spilled some milk and may have thrown off our results and gotten our conclusion wrong. Next time, we can also measure the absorption of the cookie and the cream of the Oreos separately to see easier whether or not the cream or the cookie does more of the absorbing.