



Magic Milk Experiment

Supplies Needed:

- Printable recording sheets
- A large jar (I used a plastic one like this)
- Shaving cream (not a gel version)
- Gel Food coloring or washable watercolors
- Pipettes or droppers

Doing the Experiment

1. In a small cup, mix the food coloring with some water.
2. Fill the large jar with water until it is about 3/4 full.
3. Place the jar and the cups of colored water on the table. Place a pipette in each cup of colored water.
4. Right before the kids are ready to do the experiment, spray a bunch of shaving cream in the jar until it is just a small bit above the top of the jar.

Questions to Ask During the Experiment

1. What did you notice?
2. What happened when you put the cotton swab in the milk?
3. Why do you think that happened?
4. Why do you think it stopped moving around after a period of time?
5. What else did you observe?

How this Experiment Works

Milk is made up of minerals, proteins and fats. When the dish soap enters the milk the fat begins to break up. The soap molecules run around and try to attach to the fat molecules in the milk. Normally this process would be invisible to you, but the food coloring helps you to see all of the movement taking place.

Expand the Experiment

Try the magic milk experiment with 1%, 2% and whole milk. Observe what happens and keep a record of how the milk behaves with each type of milk. Did you notice a difference? If you do this with water will the colors still move all around like they did in the milk?