



#FontanaTogether

## Magic Milk

If you are looking for a simple science and art activity to do with the kids, then look no further! This magic milk experiment is perfect for you! It amazes the kids every time and it is super easy to do too! Just grab a few household supplies and have a blast with magic milk!

### Materials:

- Milk
- Liquid food coloring– gel doesn't work well
- Dish soap
- Cotton swabs

### Instruction:

1. Pour a thin layer of milk in a shallow pan.
2. Have the kids add drops of food coloring all around in the milk.



3. Then the kids will pick up a cotton swab and dip it in the dish soap.
4. Then put the cotton swab in the milk – pressing it down in one spot and holding it there for about 15 seconds.



5. Watch what happens! There will be lots of ooohs and ahhs. And maybe even some questions about what it is happening.



That's where you can come in and ask a few questions.

### **How Does the Magic Milk Experiment Work?**

Here are some questions to ask the kids:

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?



- After you have discussed this, then you can explain the science behind it.
- 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.
- Press another dish soap covered cotton swab into the milk and see if there are any more fat molecules that haven't been found. If you still see movement, there were still some fat molecules on the loose!

### **Modifications/Variations:**

#### **Expand on the Magic Milk 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?