

How to do the Magic Milk Experiment

Magic Milk Materials

- Cow's Milk
 - Dishwashing liquid
 - Q-tips
 - Cotton Balls
 - Food colouring
 - Shallow plate or wide bowls
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Magic Milk Instructions:

Time needed: 5 minutes.

1. Add milk to plate

Pour a thin layer of milk in a plate or bowl.



2. Add food colouring

Add a few drops each of food colouring on the centre of the plate.



3. Soak cotton ball

Soak a cotton ball in dish soap.



4. Place cotton ball in milk

Carefully place the cotton ball in the centre. The colours will explode out of the centre!



5. Let the reaction continue

Let the reaction continue until the colours begin to mix and become brown.

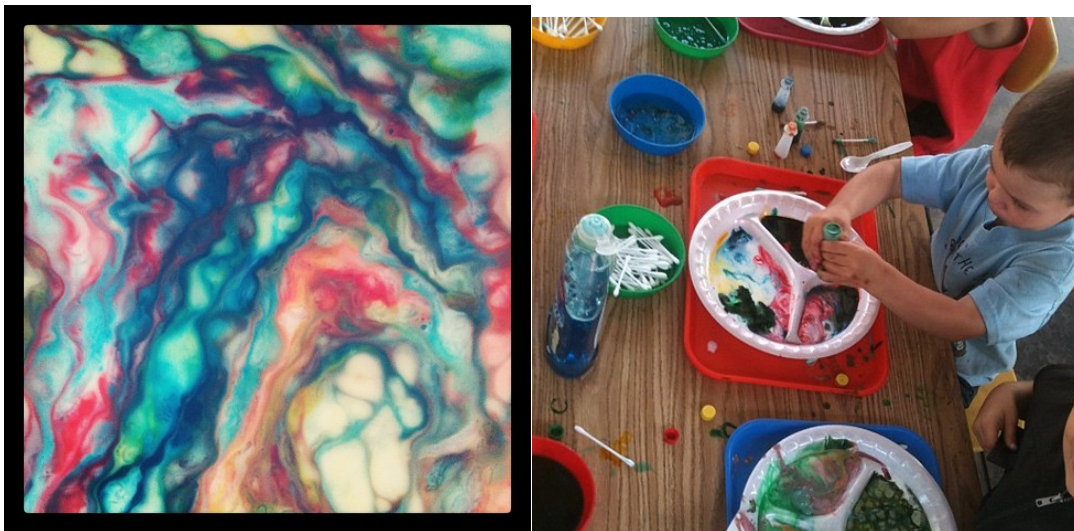


Tips & More

- You don't need that much milk! I vastly overestimated how much we would need. A gallon should go a long way.
- Too much swishing and swirling and you'll end up with brown muck fast.

Magic Milk Variations

- **Try Different Milk Types** We have used cow's milk for this experiment, and both worked well. The higher the fat content of the milk the more pronounced the "explosions" should be. A fun experiment would be to compare the results with different types of milk: almond, cow, rice, coconut. You can also experiment with cream, whole milk, and skim milk to see if there is a difference.
- **Premix the soap and milk** For a variation we premixed the milk and dish soap. You won't have the colour burst effect, but it does seem to keep the colours separate a little longer.



The Science Behind the Magic Milk Experiment:

The molecules in the dish soap are attracted to the fat molecules in the milk. As soon as you introduce the soap to the milk/colouring mixture the molecules race around trying to bond. The food colouring gets pushed around in the process and appears to burst. Eventually the molecules all bond and the reaction stops.