California State University of Bakersfield, Department of Chemistry

Magic colored Milk Science Project

Standard:

5-PS1-4. Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

Introduction:

If you add food coloring to milk, bot a whole lot happens, but it only takes one simple ingredient to turn the milk into a swirling color wheel. Here is what you do.

Materials:

- 2% or whole milk
- Food coloring
- Dishwashing liquid
- Cotton swab
- plate

Safety:

- Always have an adult with you to help you during your experiment.
- Always wear eye protection and gloves when doing chemistry experiments

Procedure:

1. Pour enough milk onto a plate to cover the bottom.
2. Drop food coloring onto the milk.
3. Dip a cotton swab in dishwashing detergent liquid.
4. Touch the coated swab to the milk in the center of the plate.
5. Don't stir the milk; it isn't necessary. The colors will swirl on their own as soon as the detergent contacts the liquid.

Data and Observations:
Record your observations in this space

What did you see? Anything you were not expecting? Describe it here.

Questions:
How long did the milk continue to swirl?

Were any new color formed?

References:

1. Anne Marie Helmenstine, about.com, http://chemistry.about.com/od/chemistryhowtoguide/a/magicmilk.htm (accessed July 19,2012).