**Milk Experiment**

**Materials**

* A shallow dish:
  + A clear dish works best as you can see what's happening beneath the surface
  + However, any other dish or dinner plate works just as fine
* Food coloring in four different colors
* Milk with a high fat content (half-and-half or whole milk work best)
* Liquid dish-washing soap
* A clean cotton swab

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**Steps**

1. Pour enough milk into the dish to just cover the bottom.  The layer of milk should have a height of about ¼ “.
   * Allow the milk to settle.
2. Add one drop of each of the food colors to the milk.  The drops should be close together near the center of the dish.
3. Touch the colored milk at the center of the dish with the tip of the cotton swab.  Do not stir the mixture!
   * Note your observation.
4. Put a drop of the dish soap at the other end of the cotton swab.
5. Place the soapy tip of the swab back at the center of the milk and hold it there for 10-15 seconds.
   * Note your observation.
   * The color should churn out from the bottom of the plate to the surface.
6. Add another drop of soap to the cotton swab and test the phenomenon again.
   * Place the cotton swab in different parts of the milk and continue your observations.
   * On touching the liquid at the edge of the plate, the color should mix and move around making cool patterns.

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https://www.scienceprojectideas.org/milk-and-food-coloring.htm