

Silly Swirls



Purpose: Students will have fun with a hands-on experiment involving milk and molecular bonds.

Background: Inside milk there is water and fat. When you add dish soap, the soap molecules bond with milk's fat molecules. This BFF bond pushes everything out of its way, including water molecules and food color. That's what makes the colors move and fall into fun, swirly patterns!

Materials: whole milk, small pan (at least 3" deep), small bowl or cup, food coloring, dish soap, cotton swabs or toothpicks

Activity:

- 1. Pour milk into the pan to about 2 inches high.
- 2. Squirt a few drops (it doesn't take much) of your favorite food color into milk.
- 3. Squeeze small drops of dish soap on top of the colors and watch them dance.
- 4. Dip a cotton swab or toothpick in a small bowl of dish soap. Lightly tap the colors or slowly swirl to make your own design.

Resources:

- Florida Dairy Farmers
 - o https://www.floridamilk.com/in-the-schools/dairy-curriculum/

