

Station 4

What You Need:

- 4% milk
- plastic plate
- cotton swabs
- liquid dish soap
- food colors

What you do:

Pour milk in plate. Just enough to spread.

Put different colored food color drops.

Take cotton swab and dip in soap bottle

Place swab in middle of plate.

The colors disperse and mix and form beautiful patterns.

Take a picture of your art if you have a camera.

Explanation

Milk is mostly water, composed of **polar molecules**, each with a negative charge on one side and a positive charge on the other. When_ the dish soap, also a polar molecule, is introduced to the surface of the milk (water), the hydrophilic (or water-loving) ends of the soap molecule **disrupt the hydrogen bonds** that form between polar water molecules, ruining the surface tension and causing this to occur.

For best results you need to_ use homogenized milk rather than 2 or 1% milk. using that the food coloring will just sit there on the milk. the dish soap breaks up the fat found in milk.

This is how grease is removed from the dishes at your home.