



Magic Milk

You will need:

Milk, detergent, various food colouring, plate, earbuds

What to do:

1. Pour milk on to the plate until it completely covers the bottom and allow to settle.
2. Add 1 drop of each of the food colours to the milk close together in the centre of the plate.
3. Touch the tip of the cotton bud to the centre of the milk –what happens?
4. Now place the other end of the cotton bud into some detergent and place again in the middle of the milk and hold for 10-15 secs – what do you observe? Why do you think that happens?



Take it further:

Try the experiment again with different types of milk, eg. full cream milk, trim. Observe what happens did you notice a difference? If you do this with water will the colours still move all around like they did in the milk?

The Science:

The soap bonds to the fats in the milk and they roll and twist as the soap tries to race around and join up with more fat molecules. This bumps and shoves the colours. (Soap also breaks the surface tension of the milk, which agitates the milk and causes it to move). As the soap becomes evenly mixed with the milk, action slows down and eventually stops. Try and add another drop of soap to see if there are still any more fat molecules that haven't found a partner in the big colour dance.