Rainbow Milk

Years 1-8

Materials

Blue top milk

Food colouring

Cotton buds

Dishwashing detergent

Instructions

Pour a layer of milk into a saucer, petri dish, shallow bowl whatever you have. Put in a couple of drops of food colouring (different colours make it look really cool!) then using a dropper or a cotton bud, drop in the dishwashing detergent slowly.

The dishwashing liquid will try to "clean" the fat out of the milk hence the swirling effect!

After doing the whole experiment, repeat the experiment leaving out one ingredient each time and have the students try and work out what is happening and why it doesn't work without all the items. It could also be done with greentop milk and cream to see what happens as well.

Why does it do that?

The soap bonds to the fat molecules (proteins) in the milk. The soap also breaks the surface tension of the milk, which "agitates" the milk and causes it to move.

This is why it's so important that we use soap when we wash our hands! The soap bonds to the dirt and oils on our hands, allowing the water to wash the dirt away.

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