

Teacher Information Sheet: Rainbow Milk

Materials needed:

A flat tray
Food coloring (3 or more colors)
Whole milk
Dish washing liquid

Method:

1. Carefully pour the milk into the tray so that it just covers the bottom
2. Add about 6-8 drops of different colored food coloring onto the milk in different spots
3. Add about 5 drops of the liquid soap onto the drops of food coloring and watch the show!
4. To clean up, pour the colored milk down the drain.

Draw out your experiment at each stage:



Questions to answer:

What happens when you add the liquid soap?
Why do you think this happens?

What do you think will happen if you use semi-skimmed milk?
What about skimmed milk?

How can you test this hypothesis?

Learning outcomes/real world applications

There are fat droplets in milk. The dish soap does not mix with the fat in the milk. Instead it floats on top and spreads over the surface. As it spreads, it grabs the food colouring.

The soap sticks to the fat in the milk, causing motion which creates the swirling colours.