

MILK KALEIDOSCOPE

You will need:



TRAY OR PLATE



FULL FAT MILK



FOOD COLOURING



DETERGENT



COTTON BALL

Method:



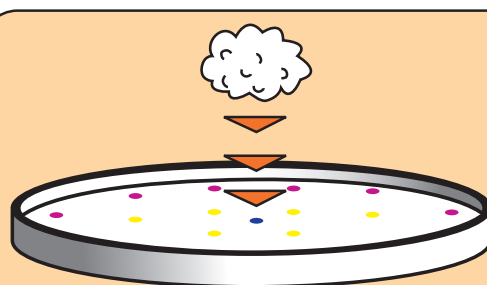
Pour in the milk to cover the bottom of the tray



Carefully add droplets of food colouring in a pattern around the tray, maybe add droplets of 1 colour around the outer edge and then another inside that and so on.

WHY DID THE COLORS MOVE IN COOL WAYS?

WHAT'S HAPPENING IN THERE?



Add the cotton ball and watch the colours move.



Add detergent to the cotton ball.

Share your results on social media

#LEARNBYDESIGN
@BYDESIGNGROUP
#STEMATHOMELBD

CHEMISTRY IS THE ANSWER!

AMAZING MOLECULES!

When the detergent and milk connect there is a chemical reaction. The molecules in each liquid have positive and negative charges in different areas. Some molecules or parts of molecules have no charges at all.

When you put the detergent on the milk, the negative end of the detergent molecules line up with the positive end of the water molecules. The detergent molecules zoom out in every direction over the surface of the milk and push the food colouring outwards, creating some amazing patterns and movement.

The negative charge on the detergent molecules are attracted to the positive parts of the protein molecules. And the uncharged part of the detergent molecules lines up with the uncharged fat molecules.

The detergent and other molecules twist and turn and switch around when different parts of the molecules come together. The food colouring is riding along with all the molecules and that's what makes the colours move!

HAVE FUN WITH STEM AT HOME