

NOM: _____

LAIT MAGIQUE

Magic Milk Lab

Comment le savon réagit dans le lait ?

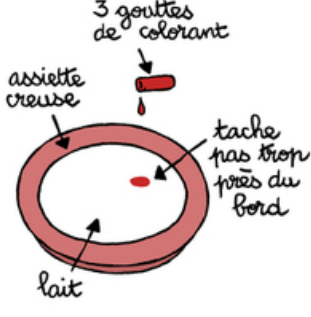
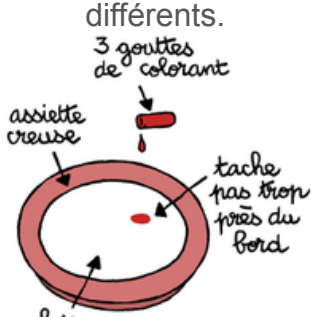
Les matériaux:

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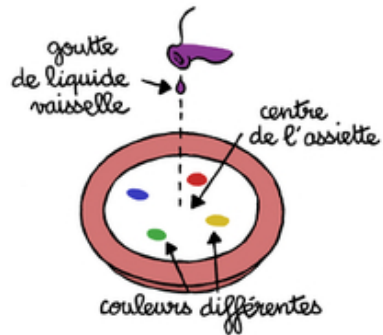
La procédure:

a) Lait et colorant

<p>1) Remplis une assiette creuse de lait</p> 	<p>2) Verse trois gouttes de colorant différents.</p> 
<p>Make a hypothesis about what will happen when you touch a plain Q-tip gently to the center of the milk.</p>	<p>Vos observations:</p>

b) Lait, colorant et savon liquide

3) Dépose une goutte de liquide vaisselle au centre de l'assiette...



Make a **hypothesis** about what will happen when you touch a Q-tip dipped in **detergent** gently to the center of the milk.

Votre dessin:

Vos observations:

Work with your group to develop an explanation for why the solution behaved the way it did.

COMMENT ÇA MARCHE ?



Le lait contient de l'eau, mais aussi du **gras** sous forme de petites gouttes. Comme le gras et le colorant ne se mélangent pas, les taches restent bien rondes ! Quand tu mets le savon vaisselle, il perturbe la surface du lait, au centre de l'assiette... Cela repousse le colorant vers les bords. En plus, le savon se fixe sur le gras. Le colorant peut alors se mélanger plus facilement avec le lait !

How it works:

Milk consists of a lot of different types of molecules, including fat, protein, sugars, vitamins, and minerals. If you had just touched a clean cotton swab to the milk, not much would have happened. The cotton is absorbent and you wouldn't have seen anything especially dramatic happen.

When you introduce detergent to the milk, several things happen at once. The detergent lowers [the surface tension](#) of the liquid so that the food coloring is free to flow throughout the milk. The detergent reacts with the protein in the milk, altering the shape of those molecules and setting them in motion. The molecules of fat bend, roll, twist, and contort in all directions as the soap molecules race around to join up with the fat molecules.

This reaction between the detergent and the fat explains how detergent helps to lift grease off of dirty dishes.

