



## Home Learning – Science with Mrs. Clark

27<sup>th</sup> April to 1<sup>st</sup> May 2020

### Magic Milk Science Experiment

To set up the magic milk science experiment, you only need a few supplies.

Milk

Liquid food colouring – gel doesn't work well

Liquid soap

Cotton buds

Shallow pan or dish

Lets get started .....

1. Pour a thin layer of milk in a shallow pan.
2. Add drops of food colouring all around in the milk.
3. Pick up a cotton bud and dip it in the liquid soap.
4. Put the cotton bud in the milk – pressing it down in one spot and holding it there for about 15 seconds.

Watch what happens .....

How Does the Magic Milk Experiment Work?

What did you notice?

What happened when you put the cotton bud in the milk?

Why do you think that happened?

Why do you think it stopped moving around after a period of time?

What else did you notice?

After you have discussed this, then you can explain the science behind it.

Milk is made up of minerals, proteins and fats. When the liquid soap enters the milk the fat begins to break up. The soap molecules run around and try to attach to the fat molecules in the milk. Normally this process would be invisible to you, but the food colouring helps you to see all of the movement taking place.

Press another liquid soap covered cotton bud into the milk and see if there are anymore fat molecules that haven't been found. If you still see movement, there were still some fat molecules on the loose!

Expand on the Magic Milk Experiment

Try the magic milk experiment with skimmed and whole milk. Observe what happens and keep a record of how the milk behaves with each type of milk (see recording sheet from last weeks experiment). Did you notice a difference? If you perform the experiment with water will the colours still move all around like they did in the milk?

