

Parent Guide

How can I use this with my children?

Explore science with an experiment at home to try together. Watch how the soap and milk make the colour explode on the plate.

How does this help my children's learning?

Watch the molecules try to bond with the help of some food colouring. Make patterns and swirls of colour once the bonding of molecules has finished.

Ideas for further learning:

Why not try and lay a piece of paper over your colour swirl to create a picture to keep?



Magic Milk Potions

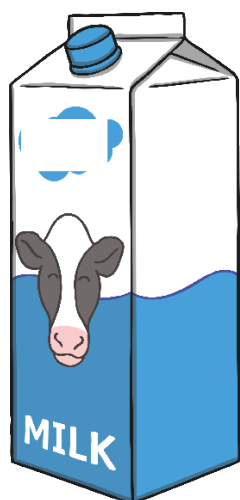
Science Experiment



Watch the colour explode before your eyes with this magic milk experiment.

Equipment

- milk
- washing-up liquid
- cotton buds
- food colouring
- shallow plate



Instructions

1. Pour some milk onto the plate - enough to cover the base of the plate.
2. Add a few drops of food colouring to the milk - do not mix into the milk. The more colours you use, the more vibrant the experiment.
3. Dip the end of a cotton bud into some washing-up liquid.
4. Dip the cotton bud end into the milk, next to a drop of food colouring.
5. The colour will appear to burst when the washing-up liquid hits it.
6. Once all the colour has burst, swirl the cotton bud slightly around the milk potion to see rivers of colour all merge together.
7. The colours will turn a murky brown colour when they can no longer be mixed.
8. Rinse the plate and start again!

The Science

Milk contains fats and proteins. Washing-up liquid has been designed to attract fats and proteins, weaken the chemical bonds between them and remove them from the items being cleaned.

When the washing-up liquid is added to the milk, the molecules of fats and

proteins are attracted to the soapy molecules. By adding food colouring, we can see the movement created as the molecules attach together.

The food colouring gets pushed around and appears to burst.

Once the molecules have all bonded, the colour explosions stop.

Remember; although you have used milk and food colouring, this mixture is not drinkable.

Alternatives to try:

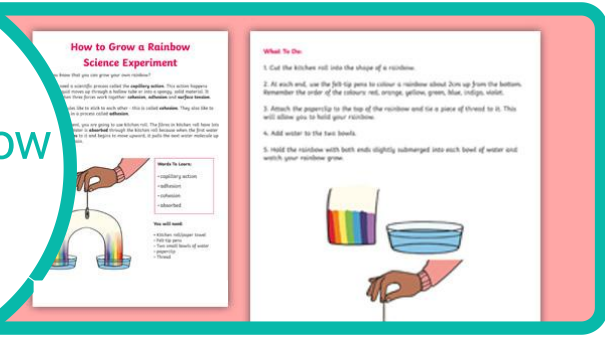
- Use different colour combinations to see how they blend or clash together.
- Use different types of milk. How does the fat content of the milk affect the experiment? What happens if you use a milk alternative?



We hope the information on our website and resource is useful. However, some ingredients and/or materials used might cause allergic reactions, so if you have any concerns about your own or somebody else's health or wellbeing, always speak to a qualified health professional. Remember, activities listed within the resource should always be supervised by an appropriate adult.

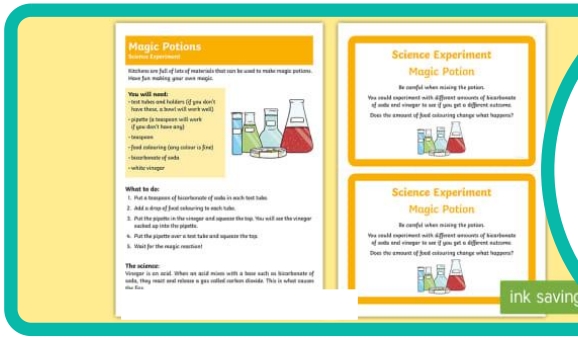
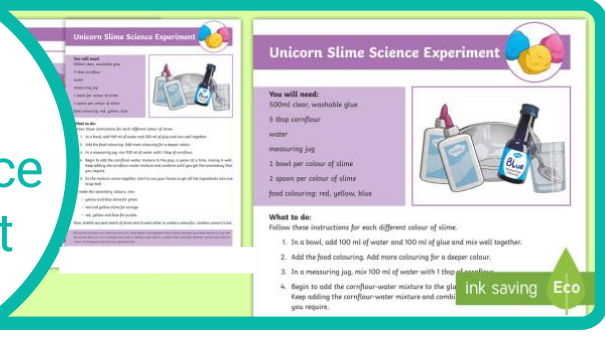
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Magic Potions Experiment and Prompt Card



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