



Dr.Howe

ABI G DON
SCIE CE
PART E RSHIP

Chemistry in The Kitchen with Mr.Fisher and Guests



Mr.Middleton



Mr.Fisher

Colourful Chemistry with Dr.Howe and James

What do you need? In this first clip, Dr.Howe and her assistant, James, will tell you all the things you will need to find before you can do their three really fun experiments.

So, watch carefully, maybe write down what you need and then go off to look for everything before you start:

[Introducing Colourful Chemistry](#)



Coloured Swirls



[Investigating Coloured Swirls](#)

Investigation challenge ideas:

- Can you think of other liquids you could use like soya milk or water with milk powder or cornflour added to it?
- What happens if you add different amounts of water to the milk, does this make the swirls better or not?
- What happens if you use different amounts of washing up liquid?
- If you investigate these things, sketch what you see or take photos and write a scientific report on what you discovered

Rainbow Columns



Making Rainbow Columns

Investigation challenge ideas:

- How many different coloured layers can you make?
- Try making layers with warm water and cold water - trickle the warm VERY carefully onto the cold, try not to let it mix
- Make coloured ice cubes, put them in a glass of water and watch the cold, melted ice sink as cold water is denser than warm water
- Find out about layers in the oceans - warm, cold, salty and fresh

Chromatography



Chromatography

Investigation challenge:

- You could try putting different coloured dyes in the water or making dyes from crushed flowers or plant leaves
- You could try different types of tissue to find out which one is the best material to use
- Find out how chromatography is used by forensic scientists or to test how pure medicines are

Thanks Dr.Howe and James!



Have fun but tidy up!

And now for something completely different....

Making an Indicator with Mr.Middleton



Red Cabbage Indicator

Investigation challenge:

- As Mr.Middleton says, find safe things to test around your home - fruit juices, cooking ingredients, clear fizzy drinks like lemonade or fizzy water, soap, toothpaste
- Write a science report about what you find out, which things are acids and which are alkalis
- Find out what acids and alkalis are and what they can be used for

Rates of Reaction with Mr.Fisher



The rate of a reaction means how quickly it happens. If the rate is high, the reaction happens very quickly.

In these next two videos, Mr.Fisher shows you some investigations you could do yourself to find out what speeds up or slows down a chemical reaction.

Watch carefully for the instructions and ingredients shown in the videos, then you could try them yourself and write a scientific report about what you did and what you found out.

Changing the Concentration



Concentration means how strong or weak a solution is. If you make squash or tea you know you can change how strong it is by changing how much you add or how long you let the tea brew for. Watch Mr.Fisher's video, then try out your own experiment:

[Changing Concentration](#)

Changing the Temperature



Changing temperature can make chemical reactions speed up or slow down. You know that if you want something to cook more quickly you turn the temperature up.

Watch Mr.Fisher's video, then try out your own experiment:

[Changing Temperature](#)

Things You Shouldn't Do At Home with Mr.Fisher

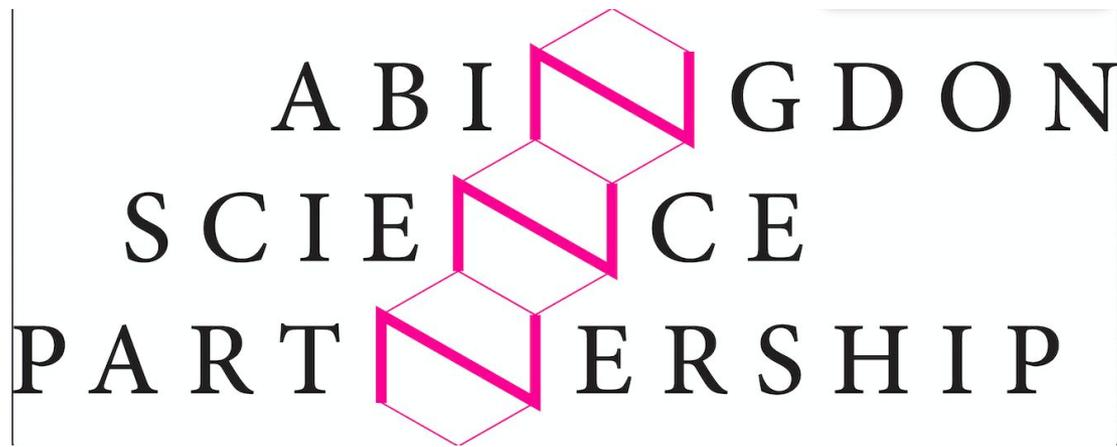
To finish off this amazing Chemistry workshop, Mr.Fisher has filmed some of his favourite demonstrations that he can do in his science lab with proper equipment and years of special training and practise. Enjoy watching!

[Elephant's Toothpaste](#)

[Fireball](#)



Thanks for coming to this



workshop. We look forward to seeing you
again soon.