

Year 6 Science Experiments you can do at home

Dear Year 6 students, parents and carers. I hope this finds you all well and using some of the time to study!

I have found 4 experiments you can try at home with things that you probably have in the kitchen. I would love to see pics of your work so please do upload pics and a short explanation of what happened for each one. You do not have to do these in any order – just choose what looks good and enjoy!

Make Slime

This is great fun to make and of course to then play with. It's a little like cooking but no need for measurements so you can just have some fun. Remember to wash your hands before and after making the slime.

What you will need:

Cornflour

Water in a cup

Food colouring

Bowl & spoon

What to do:

- Fill a cup with some water and add in a few drops of food colouring – give it a good stir.
- Pour some cornflour into a bowl – start with 2-3 tablespoons for the first time you make the slime.
- Slowly pour a little of the coloured water into the bowl and stir with a spoon.
- If the slime seems too powdery add more of the water – if it becomes too runny just add some more cornflour
- You know the slime is ready if when you poke it hard and fast it feels like a solid. But when you poke it slow and gently it feels like a liquid.

That's it – enjoy! Send me some pictures of your slime



Rainbow in a Glass

Think about a bag of Skittles. Do you have a favourite colour? What is the main ingredient in those Skittles? That's right – sugar! We are going to use different amounts of sugar mixed into coloured water to create a rainbow.

What you will need:

4 small cups - these are to make 4 different solutions

1 narrow, clear glass – this is where you will construct your rainbow

Icing Sugar (this is best as it dissolves easily but you can use any sugar you have)

Water – warm water will help the sugar dissolve quickly

Food colouring – red, yellow, green and blue

What to do:

- Line up the 4 cups and the glass in a line.
- Add 1 tablespoon of sugar to the first cup, 2 tablespoons of sugar to the second, 3 tablespoons of sugar to the third, and 4 tablespoons of sugar to the fourth.
The clear glass remains empty.
- Add 3 tablespoons of water to each of the first 4 cups that have sugar in them. Stir each solution. If the sugar does not dissolve in any of the four cups, then add one more tablespoon of water to each of the four glasses.
- Now add 2-3 drops of food colouring to each of the cups that have the sugar solution – so you now have 4 different coloured sugar solutions. I added red to my first cup, yellow to the second, green to the third and blue to the fourth
- Now time to make the rainbow! Fill the fifth glass about a $\frac{1}{4}$ full with the solution from your fourth cup (so I did blue)
- Now carefully layer some green sugar solution (3rd cup) above the blue liquid. Hold a spoon in the glass (with its back facing up) just over the blue liquid – you need to slowly pour the green liquid over the back of the spoon to form a layer. Pour until the glass is $\frac{1}{2}$ full
- Do the same with the yellow – remember to pour slowly over the back of the spoon until the glass is $\frac{3}{4}$ full
- Finally add the red until the glass is full



Make a Volcano

This is one of my favourite experiments – I suggest doing this one outside if you can – sinks, shower trays and bathtubs are also great

What you will need:

Small bowl

Cup

An empty 1.5 or 2 litre plastic bottle

2 tbsp bicarbonate of soda

2 tbsp washing up liquid

4 tbsp water

½ cup vinegar

5- 10 drops red food colouring

You can of course make a volcano shape either by gluing newspaper around the empty bottle or digging a small hole for the bottle to sit in and then filling that round with soil and gravel

How to make the volcano:

- In a bowl mix the bicarbonate of soda and washing up liquid. Add the water and mix thoroughly.
- Pour this mix into the empty bottle (the volcano) – you might need a funnel or a measuring jug so nothing spills
- In a cup mix together the vinegar and food colouring
- Get your camera ready.....
- When you are ready pour the vinegar mix into the bottle with the bicarbonate – and enjoy!

I have just given you an idea of measurements but you can try different amounts of bicarbonate and vinegar and see how the volcano's eruption changes.



Make your own Lava lamp

I am sure you will have seen these cool lamps and wondered how do they look like that? We are going to make our own versions



What you will need:

Clear glass for the lamp

Vegetable oil

½ cup water

Food colouring – go for a bright colour (gel food colours work best)

Alka Seltzer tablets – broken into 2/3 pieces and keep in a cup

What you need to do:

- Add the food colouring into the water and mix well. You will want a bright coloured liquid so add some more colour if needed.
- Now take a tall clear glass and fill it about $\frac{3}{4}$ full with the vegetable oil.
- Add the coloured water to the oil, leaving an inch or two at the top of the glass
- Cameras ready – now add the Alka Seltzer pieces to the glass – looks good doesn't it!



Remember to think about what the Science is behind each experiment and take lots of pictures to show me what happened.