

Science Experiments

Below are some experiments you could try and take part in at home. We'd love to see pictures of your experiments on *dojo!* 😊

Storm in a glass

Materials

- Shaving cream
- A large glass
- water
- Food colouring
- A spoon

Instructions:

1. Fill the glass $\frac{1}{2}$ full with water
2. Spray some shaving cream on top of the water to fill the glass to $\frac{3}{4}$ full.
3. Use your finger or a spoon to spread the shaving cream evenly over the top of the water. The top of the shaving cream should be flat.
4. Mix $\frac{1}{2}$ -cup water with 10 drops of food colouring in a separate container. Gently add the coloured water, spoonful by spoonful, to the top of the shaving cream. When it gets too heavy, watch it storm!

How does it work?

Clouds in the sky hold onto water. They can hold millions of gallons! The layer of shaving cream is our pretend cloud in this experiment. The shaving cream layer can also hold onto water. Clouds can't keep storing more and more water forever, eventually they get too heavy. When that happens,

the water falls out (precipitates) as rain, snow, sleet, or hail.

Whiteboard Man

Materials:

- A glass plate, bowl, or picture frame
- Dry erase marker
- Water

Instructions:

1. Draw a simple picture on the glass. A stick figure is a good one to start with
2. Pour water onto the plate or into the bowl slowly to lift up the drawing
3. Swirl the water around to make the picture dance and move

How does it work?

The marker leaves behind mixture of pigments and a type of alcohol mixed together. The alcohol dissolves and the pigments are left behind as a solid. Glass is so smooth that the solid slides right off when it gets wet!

Milk Art

Materials

- A bowl
- ½ cup of milk
- Dish soap
- Cotton swab
- Food Colouring, more than one colour
- Pepper (optional)

Instructions:

1. Pour the milk into the bowl. Be careful not to move the bowl, you want the milk as still as possible.
2. Put one drop of each colour in different places in the milk.
3. Put just a tiny amount of soap on the end of the cotton swab, then touch it to one of the colours. WOW!
4. Let the experimenting begin!
5. To clean up, just pour the milk down the drain. (Do not drink it)

How it Works:

Milk has fat in it and the food colouring floats on top of the fat. The fat is all connected with bonds. Think of it like the little pieces of fat all holding hands with each other. Dish soaps are used on greasy or oily dishes because it breaks the bonds in fats allowing them to separate. When you add the dish soap to the milk, the fat separates and moves making your magical milk art!