

Fall really excites me when it comes to science. Maybe it is the cool fall weather that makes me want to find something fun to do inside. It really is an exciting time to discover and learn how science surrounds us each and every day. As we are approaching one of the scariest months of the year, I thought we would begin with some “spooky science” activities – which may come in handy in a few weeks! This week, we will start with some glowing lava lamps so we can see our way...Let’s get started!

Remember to always ask an adult before doing any science experiment.

Materials

1 clear plastic or glass jar with a tight fitting lid
water
vegetable oil
food colouring
small glow stick (optional)

Procedure

1. Fill the jar approximately one third full of water.
2. Pour vegetable oil on top of the water until it is about 1cm from the top.
3. Wait two or three minutes until you can see the layers separate. You will be able to see the separation.
4. Squeeze about 8-10 drops of food colouring into the jar.
5. Add an Alka Seltzer tablet and watch what happens!
6. Keep adding pieces of Alka Seltzer as long as you want to watch the bubbles.
7. If you would like you can crack and add the glow stick to keep your lava lamp glowing all night long.
8. When not using, make sure you put the lid on tightly.

What is going on?

First of all, oil and water DO NOT mix, and that is why they separate into two distinct layers in the jar. Oil has a lower density than water and as a result will float to the top of the jar. The food colouring will slowly fall through the oil and mix in the water because it is water soluble. When you add the Alka Seltzer tablet, it begins to dissolve and release small bubbles of carbon dioxide gas that will rise to the top. As it rises, it takes some of the coloured water along for the ride! Once the gas reaches the top, it escapes and the coloured water falls back down.

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