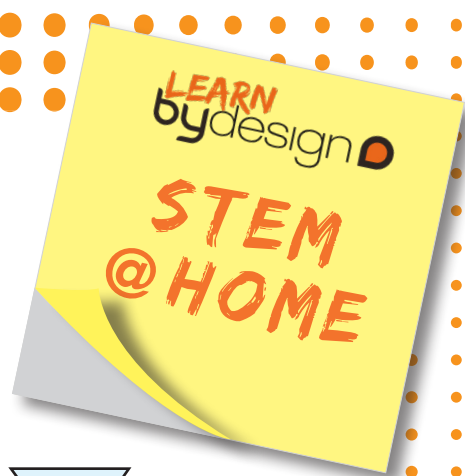
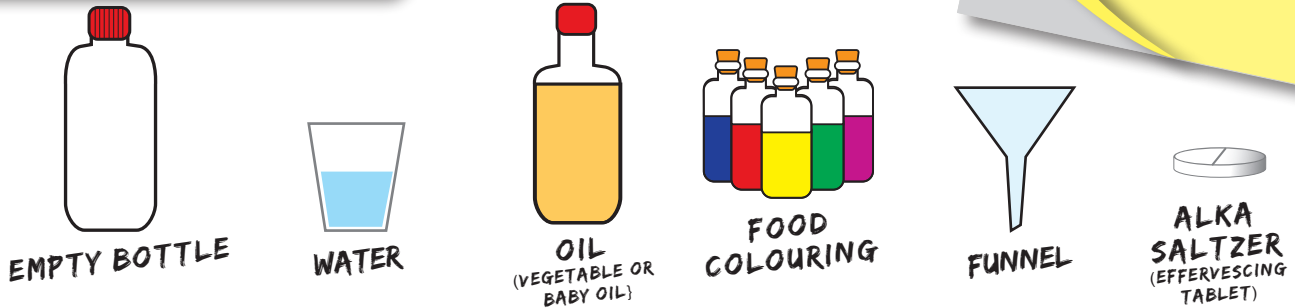


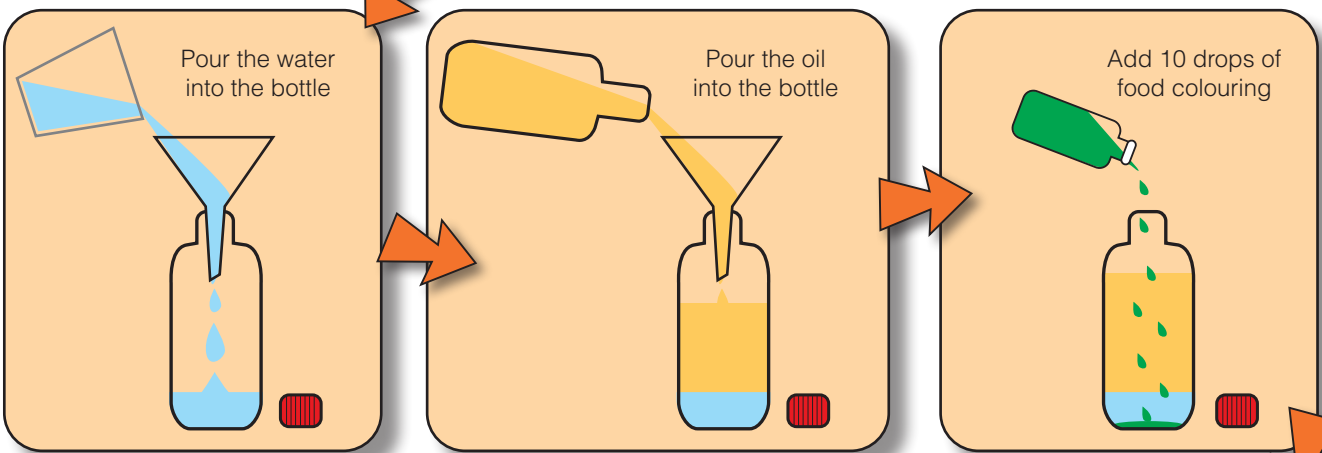
LAVA BOTTLES



You will need:



Method:



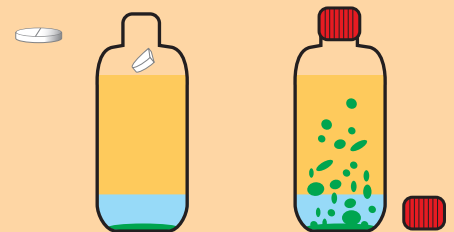
WHY DOES THE OIL SIT ON TOP OF THE WATER?

The oil sits on top of the water because the oil is lighter than the water or, more specifically, less dense than water. They do not mix because of something called "intermolecular polarity." Molecular polarity means that water molecules are attracted to other water molecules and oil molecules are attracted to other oil molecules. This is similar to magnets that are attracted to each other. The structures of the two molecules do not allow them to bond together.

WHAT HAPPENS WHEN YOU ADD THE TABLET?

When the tablet was added it sank to the bottom and started dissolving in the water. This created a gas and as the gas bubbles rose, they took the coloured water with them. When the bubbles of coloured water reached the top, the gas escaped and the coloured water sank down through the oil. You can store your coloured bubble in the bottle if you put the lid on. To start this reaction again, just add another tablet piece.

Break the tablet in half and add it to the bottle, it will start to dissolve and fizz. This will start a lava effect and bubbles will rise through the liquids. Add the other half to continue the effect.



To keep the lava bubbles put the lid on to trap the gas!

Shine a torch through the bottle for a different effect!

MORE EXPERIMENTS TO TRY

Change the temperature of the water.

Try using a larger bottle.

Add different size pieces of tablet.

Share your results on social media

#LEARNBYDESIGN
@BYDESIGNGROUP
#STEMATHOMELBD

HAVE FUN WITH STEM AT HOME