



What are DISCOVERY BOTTLES?

Discovery bottles are science experiments that you mix in a bottle. They're sometimes called sensory bottles or calm-down jars. You can keep your discovery bottles on your desk or in your reading nook and give them a shake when you need to take a break or if you're just feeling bored.

Can you really learn science from a bottle?

Yes! Science is all about using your powers of observation to explore the world around you, and there's plenty to observe in this book. In these 5 experiments, you'll investigate why oil and water don't mix, how a tornado works, what makes a jellyfish float, and much more. (Pretty good for a bottle, huh?)

**This kit includes 2 bottles, which can be cleaned and reused after completing two discovery bottles.*



GLITTER GALAXY

1. Slowly pour the 4 colours of glitter into an empty bottle.



2. Drop the sequins in the bottle.

3. Squeeze the entire glue into the discovery bottle.



4. Slowly fill the bottle with water, as close to the top as you can.

**Room temperature water works best.*



5. Place the bottle cap on top of the opening. Twist the cap clockwise until it won't move anymore.



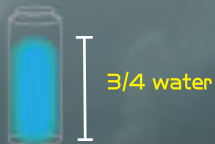
6. Mix up the bottle by gently shaking it.



So relaxing!

TINY TORNADO

It's twister!
Head for the hills!



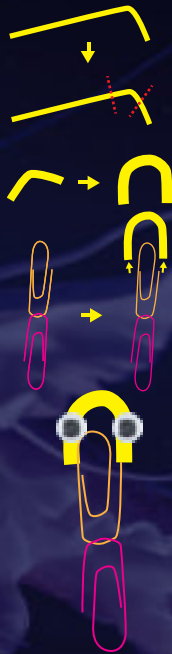
1. Fill up $\frac{3}{4}$ of an empty bottle with water.
2. Add a generous amount of dish soap into the bottle.
3. Screw on the cap tightly and check for leaks.
4. Turn the bottle upside down. Quickly swish it around until soap suds form.
5. Next, quickly spin the bottle in a counterclockwise motion. **STOP** when you see the suds making a funnel.

LAVA FIZZLER

1. Fill up 1/3 of an empty bottle with water.
2. Add three or four drops of colouring and mix. Any color will do, but use red if you want it to look like lava.
3. Fill the rest of the bottle with oil.
4. Drop one fizzing tablet into the mixture.
5. Put the cap on the bottle and watch the lava flow!



JELLYFISH TANK



1. Fill an empty bottle with water to the top of the neck.
2. Put in any optional extras such as glitter, sequins, or food colouring.
3. Time to make jellyfish! Cut the straw to get a U shape. It will be used as the jellyfish head.
4. Continue to add paper clips and googly eyes to form a jellyfish.
5. Carefully push your jellyfish into the bottle.
6. Cap the bottle tightly and check for leaks.
7. Now flip the bottle over and over and watch your jellyfish begin to swim. It's alive!

UNDERWATER FIREWORK

1. Fill an empty bottle almost to the top with water.



2. Prepare a cup and pour a little oil into it.



+



oil

3. Add a couple of drops of colouring into the cup.

Briefly stir the oil and colouring mixed.



+



5. Pour the oil and colouring mixture into the bottle.

6. Now watch! The colouring will slowly sink into the glass, with each droplet expanding outward as it falls, resembling fireworks falling into the water.





Have fun!

Now you've tried these bottle experiments, try them again with new colour combinations for more science fun!

