

Oil and Water Bottles



Science for
preschoolers



Ask your little scientist:

What do you think will happen?

What do you observe?

(Use as many senses as you can!)

What did happen?

Why?

Materials:

Water bottle

Water

Oil (cooking or baby oil)

Food Coloring

Directions:

Fill water bottle 1/3 full with oil. Pour water in to fill rest of bottle. Add food coloring. Glue lid on.

Swirl, flip, and move bottle around and watch the layers swirl together.

Questions to ask:

If doing this with an older child let them observe and help make it. What do you think will happen? What did you observe? Did the water and oil mix together? Did the color go in to the oil or the water?

Try making a bottle and adding beads or glitter. How do the new materials behave in the different layers?

What they are learning:

They are seeing density in action. Water is more dense than the oil and sinks to the bottom. They are seeing different types of liquids, polar and non-polar. These have different properties and do not mix to make a uniform mixture. The layering also allows them to see how liquids flow and fill the shape of the container they are in.