



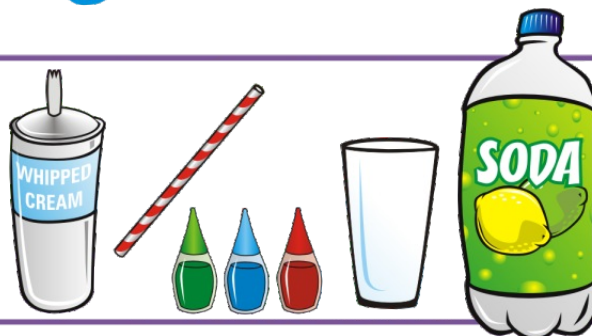
THE
**HOME
LAB**

Colorful Creamy Soda



What you need:

- Food coloring
- Clear drinking glass
- Lemon lime soda
- Straw
- Whipped cream



What you do:

Step 1: Fill the glass $\frac{3}{4}$ of the way with lemon lime soda.

Step 2: Top the soda with a thin layer of whipped cream.

Step 3: Add a few drops of food coloring on top of the whipped cream and wait a couple of minutes. What happens?

Step 4: Once you have finished observing the food coloring, mix the whipped cream and soda with the straw.

Step 5: You may now do a taste test!

Step 1:



Step 2:



Step 3:



What's going on:

This experiment combines a bunch of science into one delicious glass! The first science concept is density. Whipped cream floats on top of the soda because it is less dense. This means that the soda's molecules are more closely packed than the whipped cream's molecules. The food coloring is denser than both. This is why it drips through the whipped cream and soda. Soda has gas forced into it which makes it bubbly. As the bubbles rise, they knock into the food coloring drops, pushing them around. This makes the pretty patterns that you see. The second science concept is diffusion. Over time, the food coloring moves throughout the liquid. It travels from a denser area to a less dense area – this is called diffusion. This causes the soda in the glass to become the same color as the food coloring. Now, enjoy your colorful, frothy treat!

Now try this:

Try adding drops of juice of different colors and densities on top of the whipped cream. What patterns result from the juice?

