Density Rainbow
Create a rainbow through differences in liquid densities!

Materials:
- clear cups
- sugar
- food coloring
- spoons
- clear straws

Procedure:
Use four different food colors such as blue, red, yellow and green and place the dye in four different cups of water. After the dye is well mixed, add increasing increments of sugar to each cup for example
- Blue cup; one spoon
- Red cup; two spoons
- Yellow cup; three spoons
- Green cup; four spoons
After the sugar is well dissolved, carefully use a clear straw and take up the least dense (less sugar) liquid first into the straw. Do this by placing your thumb on top of the straw, placing the straw in the liquid, releasing your thumb to take up liquid very quickly then place your thumb back on top of the straw and pull the straw out of the liquid. Repeat this with the other liquids starting increasing from the least dense to the most dense liquid.

What Happened?
The layers of liquid do not separate but instead remain in their own layers on top of each other in the straw. Why? Because the least dense liquids float on top of the more dense liquid based on the varying concentrations of sugar making a colorful rainbow!!

Watch it here:
http://www.youtube.com/watch?v=7HNMiUH1Xkk