Rainbow in a Jar
Science Experiment

For this experiment we are going to build our own rainbow in a jar. Our rainbow is going to be made up of 5 different colors: Red, Yellow, Green, Blue and Purple.

Supplies:
• Tall Glass Jar
• Food Coloring: Red, Blue and Green
• 1/4 cup Honey
• 1/4 cup Blue Dish Soap
• 1/4 cup Water
• 1/4 cup Olive Oil
• 1/4 cup Rubbing Alcohol
• Jars for mixing and pouring
• 1/4 cup Olive Oil

Instructions:
• Add one drop of red food coloring and one drop of blue food coloring to 1/4 cup of honey and stir until combined. This is create a purple color liquid. Pour the purple liquid carefully into the tall jar.
• Next add about 1/4 cup of blue dish soap to the tall jar.
• Then add a few drops of green food coloring to 1/4 cup of water and mix until combined. Then carefully pour the green liquid into the tall jar. Tip: When pouring in the green liquid, tilt the jar so the liquid runs down the side of the jar slowly.
• Wait a few moments and then slowly pour 1/4 cup of olive oil into the jar. Tip: Again, be very careful when pouring in the liquid. Make sure to tilt the jar and pour very slowly so the colors don’t mix.
• Add a few drops of red food coloring to 1/4 cup of rubbing alcohol and mix until combined. Then carefully pour the red liquid into the tall jar. Tip: I can’t stress enough how important it is to tilt the jar and pour slow. Otherwise the colors will mix together and you won’t get a distinct rainbow.

Discussion:
The experiment works because the liquids used have different densities. The liquids with higher densities weigh more than the liquids that are less dense. Therefore, the less dense liquids will sit on top of the denser liquids.