Worksheet
What's the Matter?
All matter that we see or touch, and even ones that we can't see or touch are in one of three states: They are solids, liquids, or gases. In this module you will be studying the different states of matter. When scientists think or talk about matter they mean every substance in the universe from the largest planet to the tiniest speck of dust. But what is matter? In the following experiment you will observe a form of liquid matter to try to determine what matter is made of.

Materials
- small test tube
- eyedropper
- water
- alcohol

Procedure
1. With the eyedropper fill your test tube half way with water.
2. With the eyedropper carefully, trying not to mix the two liquids together, add alcohol on top of the water until the test tube is completely full to the top.
3. Place your finger over the test tube to seal it. There should be no air inside the tube. It should be completely filled with liquid and sealed with your finger.
4. Mix the two liquids by vigorously shaking the test tube and turning the test tube upside down.
5. Observe what happened in the test tube and answer the questions below.

Questions:
1. What happens when you mix the two liquids together?

2. After the liquids were mixed together, do they take up the same space as they did before? How do you know?

3. Do your observations seem to support the theory that atoms exist or that matter can be divided into infinitely small pieces? Why?

4. Draw a series of pictures showing what you think is happening when the alcohol and water mix.