7.1 Heterogeneous and Homogenous

A **Pure substance** is one where the particles are identical through out the entire substance.

The particles in one pure substance will be different than the particles in another pure substance.

Each part of a pure substance has all the same properties as any other part. For example the color, boiling point.

Examples of pure substances are copper, pure water, carbon dioxide, and table salt.

It is hard to find pure substances in nature. Most matter must be separated to be made pure.

Once it is pure, the matter can no longer be broken down into a smaller piece and still be that substance.

**A Mixture** is a substance that contains two or more kinds of particles or matter. It may be a solid mixed with a solid, or a solid with a liquid, or a liquid with a liquid, a liquid with a gas and so on. Mixtures can be separated into their parts with physical procedures like filtering, evaporating, etc.

Particles in a mixture will look different at the molecular level.

Examples of mixtures include orange juice, concrete, air, tap water

Mixtures can be broken up into two groups

1. **Heterogeneous mixtures:** These mixtures have two or more parts that you usually can see with your naked eye. Chocolate chip cookies, kraft dinner, ocean water, dust floating in the air
2. **Homogenous Mixtures:**  These are things we know to be made up of more than one kind of matter but it appears that they look even through out and as if they were only one thing. Examples are margarine, steel pan, apple juice.