**7.2 Classifying Mixtures**

Mixtures can be divided up into three groups:

Heterogeneous Homogenous Mixture of Mixtures (both)

**Heterogeneous** mixtures have clearly visible parts. Ex. salad dressing, party mix

These are sometimes called mechanical mixtures and are separated simply by hand or filtering.

**Homogenous Mixtures**: have more than one part but they can’t be seen, even under a microscope.

These are called **solutions and alloys**. They can also be separated but it takes more work like evaporation or distillation.

**Solutions** are mixtures that remain liquid or a gas. They appear as if they are only one thing. They are clear but may be colored. Jello, kool aid, clean air.

**Alloys** are solid solutions made from two or more metals, melted, mixed then cooled back to a solid. Ex. Steel, Brass, Loonies

**How do you tell the difference?**

1. Use a microscope. If you see other things it is heterogeneous, if not, solution.
2. Use a filter, if it separates it is heterogeneous.
3. Use a beam of light. If you see scattered light, the light hit large particles so it is heterogeneous.

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What if it does both?

Some mixtures are a **mixture of mixtures.** This means some parts are dissolved in solution and some are not. Milk and orange juice with pulp are good examples. You may need a microscope to see the undissolved parts.