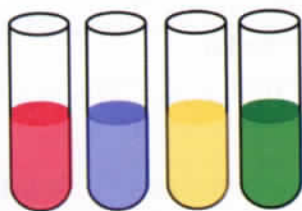


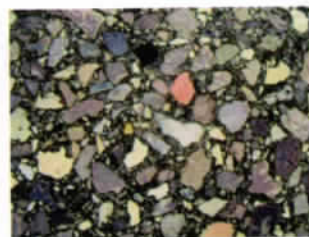
## 2.3 Mixtures and Solutions

Homogeneous mixture is the same throughout

Most matter is mixtures of many different compounds. A homogeneous mixture is the same throughout. All samples of a homogeneous mixture are the same. For example, stirring food color in water can produce a homogeneous mixture. The water near the top of the test tube has the same concentration of color as the water near the bottom. Brass is another example of a homogeneous mixture. Brass is made of 70 percent copper and 30 percent zinc. If you cut a brass candlestick into ten pieces, each piece would contain the same 70% copper and 30% zinc.



Well mixed food color in water is a **homogeneous** mixture



Concrete is a **heterogeneous** mixture

Heterogeneous mixtures

A heterogeneous mixture is one in which different samples are not necessarily made up of exactly the same proportions of matter. One common heterogeneous mixture is concrete. Concrete contains cement and rocks of many different types and sizes.

TABLE 2.1. Summary of the types of matter

Type of matter	Definition	Examples
Homogeneous mixture	A mixture that contains more than one type of matter and is the same throughout.	soda pop, air,
Heterogeneous mixture	A mixture that contains more than one type of matter and is not the same throughout.	chicken soup, soil, fudge ripple ice cream
Element	A substance that contains only one type of atom.	copper metal, oxygen gas, liquid nitrogen
Compound	A substance that contains more than one type of atom.	table salt, rust (iron oxide), carbon dioxide gas

### Chemistry terms

**homogenous mixture** - is a mixture that is uniform throughout, any sample has the same composition as any other sample.

**heterogeneous mixture** - is a mixture that is not uniform, different samples may have different compositions.