

# Unit 1 - Topic 3

## Mixtures

Homogeneous	Heterogeneous
uniform throughout	non-uniform
salt in water	chunky chicken soup
air	dirt in water

- For each of the following, first decide *if* it is a mixture and then *label* whether it is homogeneous or heterogeneous.
  - \_\_\_\_\_ chocolate chip ice cream
  - \_\_\_\_\_ a mixture of  $H_2$  and  $O_2$  gases
  - \_\_\_\_\_ a chunk of copper
  - \_\_\_\_\_ brass (copper + zinc)
  - \_\_\_\_\_ blood
  - \_\_\_\_\_ air in a sealed bottle
- The symbol (aq) means aqueous or 'mixed with water'. It represents a solution made with water. List 3 examples of mixtures made with water and tell whether they are homogeneous or heterogeneous.
- How can you try to make a heterogeneous mixture more homogeneous?
- Draw a particle diagram for a homogeneous and a heterogeneous mixture. Use ● and ○. Label each.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

Separating Mixtures: Taking advantage of various physical and chemical properties, how would you separate the following mixtures into their components?

Mixture	Separation Technique
Sand & Water	
Sugar & Water	
Sand & Gravel	
A mixture of heptane (boiling point 98°C) and heptanol (boiling point 176°C)	
A mixture of iodine solid and sodium chloride (Hint: Iodine is not soluble in water.)	
A mixture of salt and iron filings.	