

Name _____ Date _____ Period Teacher
copy

Elements, Compounds & Mixtures Worksheet

Elements:

- A pure substance containing only one kind of atom.
- An element is always uniform all the way through (homogeneous).
- An element cannot be separated into simpler materials (except during nuclear reactions).
- Over 100 existing elements are listed and classified on the periodic table.

Compounds:

- A pure substance containing two or more kinds of atoms/elements.
- The atoms are chemically combined in some way. Often times (but not always) they come together to form groups of atoms called molecules.
- A compound is always homogeneous (uniform).
- Compounds cannot be separated by physical means. Separating a compound requires a chemical reaction.
- The properties of a compound are usually different than the properties of the elements it contains.

Mixtures:

- Two or more atoms or elements NOT chemically combined. (instead are physically combined).
- No reaction between substances.
- Mixtures can be uniform (called homogeneous) and are known as solutions.
- Mixtures can also be non-uniform (called heterogeneous).
- Mixtures can be separated into their components by chemical or physical means.
- The properties of a mixture are similar to the properties of its components.

Part 2: Classify each of the following as elements (E), compounds (C) or Mixtures (M).

___Diamond(C)

___Sugar (C₆H₁₂O₆)

___Milk

___Iron (Fe)

___Uranium (U)

___A dog

___Air

___Gasoline

___Krypton (K)

___Alcohol (CH₃OH)

___Salt (NaCl)

___Water (H₂O)

___Wood

___Pizza

___Gold (Au)