All Matter

Pure

Physical processes

Mixture

Heterogeneous

Incomplete mixing, thus they have a non-uniform composition.

The pure substances in this mixture are distinguishable from each other.

Homogeneous

Complete 100% mixing, thus they have a perfectly uniform composition.

The pure substances in this mixture are indistinguishable from each other.

Elements

Chemical processes

Compounds

• Cannot be broken down to simpler substances by any means.
• Composed of one type of atom only.
• Atoms of a particular element are all identical, but they are different from the atoms of another element.

• Two or more elements chemically combined in fixed proportions.
• Compounds obey the Law of Constant Composition.
• Composed of different types of atoms (from different elements) which are bonded together.
• The properties of compounds are unique and differ from the properties of the elements of which they are composed.