

## Classification of Matter Study Guide

### Terms to know regarding matter classification

Heterogeneous, homogeneous, element, compound, substance, solution, interface, phase, physical changes, chemical changes, physical properties, chemical properties, big bang, fusion, star, supernova

### Understand the following topics:

- law of conservation of mass
- the mass and charge of protons, neutrons, and electrons
- atomic evolution
- ions
- isotopes

### Be able to:

- identify heterogeneous materials, solutions, elements, compounds
- distinguish between physical and chemical changes
- fill in an atomic number ( $Z$ ), atomic mass ( $A$ ),  $P^+$ ,  $N^0$ ,  $e^-$  chart for neutral atoms, ions and specific isotopes
- locate information on standard periodic table
- identify where the elements were originally produced
- relate atomic structure to written representations similar to the things you saw on the PhET activity