

Science 9
Chemistry: Test Review Chapters 2,3,4

Terms:

pure substance	molecule	Halogens
mixture	Chemical formula	Noble gases
solution	Chemical symbol	Chemical group
heterogenous mixture	Matter	Period
element	Valence	Periodic table
compound	Alkali metals	
atom	Alkali earth metals	

- Particle Theory (know the 4 parts)
- Be able to identify the type of substances (pure substance vs mixture, solution vs heterogenous mixture)
- Be able to explain the difference between atoms, elements, molecules and compounds
- Different molecules from the same elements i.e water (H₂O) hydrogen peroxide (H₂O₂)
- Understand how the periodic table is organized and how to use it to find elements.
- Know what chemical symbols represent what elements i.e. Na = sodium, N =nitrogen etc
- Know how to name chemicals given a chemical formula i.e. NaCl sodium chloride
- Know what the subatomic particles are.
- Know the definitions for protons, electrons and neutrons (include where they are located in the atom and their charge)
- Understand the standard atomic notation (ex. $^{35}_{17}Cl$) and be able to write it for any element.
- Be able to determine atomic number, mass number, number of protons, electrons and neutrons given information about an atom.
- Be able to draw a Bohr diagrams for any given atom.
- What is an ion? Why do ions form?
- Be able to draw Bohr diagrams showing electron transfer when compounds are created and then create the formula and name of the compound.
- Make sure you can tell what charge/electron number an ion should have given:
 - the number of electrons and protons
 - the charge and the number of protons
- Be able to count the number of atoms in a chemical formula