Name: _____

Period: _____

Fall Test Preview and Study Index

What to do:

1) Find the worksheet or worksheets that contain the terms or information.
2) Study the information and terms to be ready for the test.

Worksheets and study helps can be found at: www.aisd.net/smurray

Chapter 16—

Worksheet	Process or Skill
_____	Know definition of Matter.
_____	Be able to give examples of and tell difference between: Mixtures vs. substances (non-mixtures); Homogenous vs. heterogeneous mixtures; Elements vs. Compounds.
_____	Be able to do metric conversions. Know the different basic units: meters; liters; grams. Know the prefixes: Kilo-, Hecto-, Deka-, Basic Unit, Deci-, Centi-, Milli-. Know approximately how big the common metric units are.
_____	Know the four states of matter: Solid; Liquid; Gas; Plasma.
_____	Of the three most common states (Solid; Liquid; Gas) know the properties of each: shape; volume; compressibility; speed of molecules; distance between molecules.
_____	Know the names of the temperatures at which a substance changes state: freezing point, etc.
_____	Be able to list and APPLY the 6 major steps of the Scientific Method.
_____	Be able to calculate volume with the displacement method.

Chapter 17—

Worksheet	Process or Skill
_____	Know what density is and how to calculate density; know what is denser liquids or solids and why.
_____	Be able to draw a density column: know how density affects whether something sinks or floats.
_____	Know the density of water and be able to recognize it; know that water is denser than ice (one exception).
_____	Know and understand these words: Hardness; Elasticity; Brittleness; Malleability; Tensile Strength; Viscosity.
_____	Know about buoyancy and Archimedes' Principle; know how to figure out whether an object will sink or float and how much cargo it can carry.

Chapter 18—

Worksheet	Process or Skill
_____	Know the structure of the atom: the subatomic particles; where they are; what their charges are.
_____	Know these words: element; isotope; nucleus; atomic number; mass number; molecule; compound; proton; neutron; electron; atom.
_____	Know about charges repelling and attracting, what electron orbits electrons fill up first, and how the nucleus stays together.
_____	Know the atomic scientists and their contributions to our atomic theory.
_____	Be able to find this information from the periodic table: element name; symbol; atomic mass; atomic #; group and period.
_____	Be able to find the number of valence electrons and the molecular mass of a molecule.

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Chapter 19—

Worksheet	Process or Skill
_____	Be able to tell metals from non-metals.
_____	Be able to figure out if an atom is an ion, give ion notation; from ion notation be able to give the number of electrons.
_____	Be able to tell the type of compounds.
_____	Be able to use dot diagrams to show individual atoms and covalent compounds.
_____	Be able to name compounds.
_____	Be able to balance ionic compounds.
_____	Know these terms and able to apply them: valence electrons; cation; anion; octet rule; neutral atom; ion.

Chapters 20 and 21—

Worksheet	Process or Skill
_____	Know the differences between physical and chemical changes and be able to prove it with evidence.
_____	Be able to tell the number of atoms in a chemical reaction.
_____	Be able to tell the tell the reactants from the products in a chemical reaction.
_____	Be able to classify the different reactions (addition; decomposition; etc).
_____	Be able to balance chemical equations.
_____	Know what these are: Law of Conservation of Mass; Principle of Conservation of Atoms.
_____	Know these words: endothermic; exothermic.

Chapters 22 thru 25 —

Worksheet	Process or Skill
_____	Know the differences between fission and fusion; their waste products.
_____	Know the differences between the three kinds of radiation: alpha; beta; and gamma.
_____	Know why atoms decay.
_____	Know these words: carbon dating; half-life; chain reaction.
_____	Be able to do a half-life calculation.
_____	Know what these are: solution; solute; solvent; dissolve; soluble; insoluble; saturated; unsaturated; supersaturated; colloid; suspension.
_____	Know why water is polar and why we call it the “nearly” universal solvent.
_____	Know what four ways change dissolving rate.
_____	Know the differences between acids and bases and be able to recognize them in chemical formulas.
_____	Know what pH is and what that means for acids and bases.
_____	Know what neutralization is and what products it makes.