

Study Guide

Directions: Review all **notes, labs, lab review questions, videos, quizzes, tests, and reading assignments**. Understand definitions and concepts relating to the terms on this study guide.

Science notes are on the internet at: www.LakeviewJHS.net
• go to “Science” and find the notes under each topic

Know How To:

- balance equations
- identify symbols, names, and uses of 36 elements
- identify and describe elements of life
- determine the number of atoms in a compound
- diagram an atom with correct numbers and locations for protons, neutrons, and electrons
- determine physical versus chemical properties
- explain an entry on the Periodic Table
- identify regions of the Periodic Table
- decide whether a substance is acid, base, or neutral
- write chemical formulas from diagrams of compounds
- determine mathematically whether an object will sink or float

Reading Review in textbook “Physical Science” (this is an additional resource for information)

Chapter 3: Properties of Matter

Chapter 4: States of Matter

Chapter 5: Elements, Compounds, and Mixtures

Chapter 6: Intro to Atoms

Chapter 7: The Periodic Table

Chapter 8: Chemical Bonding

Chapter 9: Chemical Reactions

Chapter 10: Chemical Compounds

Chapter 11: Chemistry of Living Things

Physical Properties

Physical Properties

mass

weight

volume

density

buoyancy

phase

color, size, shape

texture
hardness
luster
luminance
malleability
conductivity
magnetism
heterogeneous
homogeneous
specific gravity
synthetic
viscosity

Phases of Matter

phase change
shape of a solid, liquid, gas
volume of a solid, liquid, gas
arrangement of particles of a solid, liquid, gas
movement of particles of a solid, liquid, gas
plasma

Structure of Matter

Mixtures

mixture
heterogeneous mixture
suspension
colloid
homogeneous mixture
solution
alloy
solute
solvent
universal solvent
evaporation
diatomaceous earth

Saturation

saturated solution
super saturated solution
solubility
crystals

Concentration

concentrated solution
dilute solution

saturated vs. 100% concentrated

Elements & Compounds

pure substance

atom

element

compounds

properties of elements vs. properties of compounds

Chemical Reactions

Chemical Properties

flammability

ability to liberate/absorb heat

ability to rust, change color, make sound

ability to produce gas or precipitate

Reactions and Equations

chemical reactions

Law of Conservation of Matter

coefficient

subscript

reactants

products

formula

equation

direction of reaction

Chemical Products

liberate/absorb heat

gas

precipitate

Chemical Commodities

nylon

plastics

soaps

foods

building materials

Chemicals

sodium chloride

citric acid

sodium bicarbonate

calcium chloride

Atomic Structure

Atoms

Greeks

nucleus

neutrons

protons

electrons

valence

isotope

Periodic Table

Mendeleev

number of elements that make-up all matter

number of elements that make up 99% of Earth's crust

symbol

atomic number

mass number

atomic mass

atomic mass units (amu)

columns

groups

families

rows

periods

metals

metalloids

non-metals

staircase line

noble/inert gases

most active metals

Bonds

ionic

covalent

crystals

molecules

ions

Acids-Bases-pH

acids

bases

pH

Equipment - see equipment section on past tests