

Carmel High School
H. Chemistry Review(Part 2)
Chapters 1-5
Semester One 2016
Mr. Dooner

Chemistry: Chapters 1-5

Chapter One

Key Terms:

Microscopic/macrosopic

Hypothesis/theory/law

Alchemy

Manipulated/responding variable

Collaboration & communication in science

***** A LAW DOESN'T ATTEMPT TO
EXPLAIN THE RELATIONSHIP IT
DESCRIBES; THAT EXPLANATION
REQUIRES A THEORY**

Chapter Two

Key Terms:

Intensive/extensive properties

Physical properties(examples)

States of matter

Physical/Chemical changes

Mixtures

Filtration/Distillation/chromatography

Precipitate

**FOUR POSSIBLE CLUES TO
CHEMICAL CHANGE INCLUDE A
TRANSFER OF ENERGY, CHANGE
IN COLOR, THE PRODUCTION OF A
GAS, OR FORMATION OF A
PRECIPITATE**

Chapter Three

Key Terms:

Error and percent error

Rules for Significant figures

Celsius and Kelvin scales

Density

Accuracy/precision

PRACTICE PROBLEMS:

Do # 58, # 70 b,c, , # 76

Chapter Four

Key Terms:

Dalton's atomic theory

J.J. Thomson

Robert Millikan

Rutherford's Gold Foil experiment

PRACTICE PROBLEM:

P. 122 # 50, P. 125 # 1

Chapter Five

Key Terms:

Bohr Model of the Atom

Energy Levels

Quantum Mechanical Model of Atom

S, p, d, and f orbitals(location, number of electrons, shape)

THREE RULES- THE AUFBAU PRINCIPLE, THE PAULI EXCLUSION PRINCIPLE, and HUND'S RULE—TELL YOU HOW TO FIND THE ELECTRON CONFIGURATIONS OF ATOMS

Wavelength

Amplitude

Frequency

PRACTICE PROBLEMS:

p. 140 # 14 and 15

ROYGBIV

Louis deBroglie

Heisenberg Uncertainty Principle

CLASSICAL MECHANICS ADEQUATELY DESCRIBES THE MOTIONS OF BODIES MUCH LARGER THAN ATOMS, WHILE QUANTUM MECHANICS DESCRIBES THE MOTIONS OF SUBATOMIC PARTICLES AND WAVES

THE WAVELENGTH AND FREQUENCY OF LIGHT ARE INVERSELY PROPORTIONAL TO EACH OTHER

THE LIGHT EMITTED BY AN ELECTRON MOVING FROM A HIGHER TO A LOWER ENERGY LEVEL HAS A FREQUENCY DIRECTLY PROPORTIONAL TO THE ENERGY CHANGE OF THE ELECTRON

PRACTICE PROBLEMS:

p. 150 # 57

p. 150 # 59

p. 151 # 68

p. 151 # 72

p. 151 # 76

p. 151 # 65

p. 153 # 6,7,8,9,10

p. 153 # 14,15,16,17