

9/08

**LEARNING CENTER PROGRAMS SUGGESTED FOR
CHEMISTRY 11
GENERAL COLLEGE CHEMISTRY**

<u>CODE NO.</u>	<u>TITLE</u>
	<u>BASIC DEFINITION, MEASUREMENT</u>
V2416.1	INTRODUCTION AND PHILOSOPHY / QUANTITATIVE REASONING IN LIFE & CHEMISTRY, PART 1 & 2 <i>(Chemistry, Lessons 1 – 3) – 36 min. ea. c1997</i>
FY72	CLASSIFICATION OF MATTER – c1972 (ELECTRONIC RESERVE)
V1218.5	A MATTER OF STATE <i>(The World of Chemistry) – 30 min. c1990</i>
V3207.1	INTRODUCTION TO MATTER, THE ELEMENTS, AND UNITS OF MEASURE <i>(Chemistry: Standard Deviants) – 25 min. c2000</i>
V768	CHEMISTRY: ELEMENTS, COMPOUNDS, AND MIXTURES – 20 min. c1983
FY73	ELEMENTS, COMPOUNDS, AND MIXTURES – c1972 (ELECTRONIC RESERVE)
V1218.3	MEASUREMENT: THE FOUNDATION OF CHEMISTRY <i>(The World of Chemistry) – 30 min. c1990</i>
V1822	THE PERIODIC TABLE, FORMULAS & EQUATIONS – 21 min. c1992
V1923	OSHA'S CHEMICAL STANDARDS: COMPLIANCE IN THE CLINICAL LABORATORY – 32 min. c1994
	<u>ATOMS, MOLECULES AND IONS</u>
V1218.6	THE ATOM <i>(The World of Chemistry) – 30 min. c1990</i>
V3207.6	ATOMIC STRUCTURE <i>(Chemistry: Standard Deviants) – 27 min. c2000</i>
DVD305	BOHR'S MODEL OF THE ATOM—26min, c2006
V1694.1	INTRODUCING THE PLAYERS <i>(Electron Arrangement and Bonding) – 10 min. c1992</i>
V1692.1	RELATIVE MASS <i>(The Mole Concept) – 10 min. c1992</i>
V3207.3	MOLES, PERCENT COMPOSITION, AND THE EMPIRICAL FORMULA <i>(Chemistry: Standard Deviants) – 31 min. c2000</i>
V2416.1	THE MOLE CONCEPT: PRELIMINARY IDEAS <i>(Chemistry, Lesson 7) – 36 min. c1997</i>
V2416.2	THE MOLE / SOLVING MOLE PROBLEMS <i>(Chemistry, Lessons 8 – 9) – 32 min. ea. c1997</i>
V1218.11	THE MOLE <i>(The World of Chemistry) – 30 min. c1990</i>
V1692.6	THE MOLE <i>(The Mole Concept) – 10 min. c1992</i>
FY81	MOLECULAR WEIGHTS AND MOLES – c1973
	<u>CHEMICAL FORMULAS AND EQUATIONS</u>
FY77	WRITING CHEMICAL FORMULAS – c1973
PR2022	CHEMICAL FORMULAS AND NAMES (Powell) – c1977

CHEMICAL FORMULAS AND EQUATIONS (Continued)

- FY80 NAMING THE COMPOUNDS – c1973
 FY82 CALCULATION OF PERCENT COMPOSITION, PART 1 – c1973
 FY83 CALCULATION OF PERCENT COMPOSITION, PART 2 – c1973
 V2416.2 PERCENT COMPOSITION AND EMPIRICAL FORMULAS
 (*Chemistry, Lesson 11*) – 32 min. c1997
 V3207.3 MOLES, PERCENT COMPOSITION, AND THE EMPIRICAL
 FORMULA (*Chemistry: Standard Deviants*) – 31 min. c2000
 V3207.2 CHEMICAL EQUATIONS AND ATOMIC AND MOLECULAR MASS
 (*Chemistry: Standard Deviants*) – 20 min. c2000
 FY84 DETERMINATION OF THE SIMPLEST FORMULA – c1973
 FY78 INTRODUCTION TO BALANCING EQUATIONS – c1973
 FY79 EQUATIONS AND TYPES OF REACTIONS – c1973
 FY288.1 BALANCING CHEMICAL EQUATIONS
 PR2024 BALANCING CHEMICAL EQUATIONS (*Powell*) – c1977
 V2416.2 WRITING AND BALANCING EQUATIONS (*Chemistry, Lesson 13*)
 32 min. c1997
 FY85 CALCULATIONS BASED ON THE CHEMICAL EQUATION, MOLE
 RATIO METHOD – c1973
 PR2025 MASS AND VOLUME RELATIONSHIPS (*Powell*) – c1977

CHEMICAL REACTIONS, MASS RELATIONSHIPS

- V1789 ACID-BASE INDICATORS – 19 min. c1989

THE GASEOUS STATES
 V1692.2 GAS VOLUMES (*The Mole Concept*) – 10 min. c1992
 V1692.3 COMBINING GAS VOLUMES (*The Mole Concept*) – 10 min. c1992

 V1218.4 MODELING THE UNSEEN (BEHAVIOR OF GASES) (*The World of
 Chemistry*) – 30 min. c1990
 V1218.5 THE MATTER OF STATE (*The World of Chemistry*) – 30 min. c1990
 V3207.9 GASES AND STATES OF MATTER (*Chemistry: Standard Deviants*)
 33 min. c2000
 V919.19 TEMPERATURE AND GAS LAW (*The Mechanical Universe and Beyond*)
 30 min. c1986

STOICHIOMETRY (SERIES) – c1973

- FY53.1 ATOMIC WEIGHTS, MOLECULAR WEIGHT AND THE
 MOLE CONCEPT
 FY53.2 FORMULAS AND COMPOSITION CALCULATIONS BASIC
 PRINCIPLES IN CHEMISTRY
 FY53.3 FORMULAS FROM ANALYSIS OF COMPOSITION OF
 COMPOUNDS, BASIC PRINCIPLES IN CHEMISTRY
 FY53.4 CALCULATIONS INVOLVING EQUATIONS, BASIC PRINCIPLES IN
 CHEMISTRY

- V2416.2 **AN INTRODUCTION TO STOICHIOMETRY / STOICHIOMETRY PROBLEMS** (*Chemistry, Lessons 14 -15*) – 32 min. ea. c1997
- V3207.4 **SOLUTION STOICHIOMETRY** (*Chemistry: Standard Deviants*) – 33 min. c2000
- V2416.3 **ADVANCED STOICHIOMETRY** (*Chemistry, Lesson 16*) – 36 min. c1997

QUANTUM THEORY AND ELECTRONIC STRUCTURE

- V919.1 **BEYOND THE MECHANICAL UNIVERSE** (*The Mechanical Universe and Beyond*) – 30 min. c1986
- FY36 **ATOMIC STRUCTURE ELECTRON CONFIGURATIONS AND ORBITAL DIAGRAM, BASIC PRINCIPLES IN CHEMISTRY** – c1973
- V1694.3 **ELECTRON ARRANGEMENT** (*Electron Arrangement and Bonding*) 10 min. c1992
- V3207.8 **MOLECULAR GEOMETRY AND BONDING THEORIES** (*Chemistry: Standard Deviants*) – 18 min. c2000

PERIODIC RELATIONSHIPS

- V1822 **THE PERIODIC TABLE, FORMULAS & EQUATIONS** – 21 min. c1992
- V861 **CHEMISTRY: PERIODIC TABLE AND PERIODICITY** – 24 min. c1983
- V1218.7 **THE PERIODIC TABLE** (*The World of Chemistry*) – 30 min. c1990
- V1218.3 **MEASUREMENT: THE FOUNDATION OF CHEMISTRY** (*The World of Chemistry*) – 30 min. c1990

CHEMICAL BONDING

- V1218.8 **CHEMICAL BONDS** (*The World of Chemistry*) – 30 min. c1990
- V767 **CHEMISTRY: CHEMICAL BONDING AND ATOMIC STRUCTURE** 23 min. c1983
- V3207.7 **CHEMICAL BONDING** (*Chemistry: Standard Deviants*) – 18 min. c2000
- V1694.4 **HOW ATOMS BOND** (*Electron Arrangement and Bonding*) – 10 min. c1992

PROPERTIES OF SOLUTIONS

- V769 **CHEMISTRY SOLUTIONS (Ionic and Molecular)** – 23 min. c1983
- V1694.5 **METALS AND IONIC SOLIDS** (*Electron Arrangement and Bonding*) 10 min. c1992
- V3207.10 **PROPERTIES OF SOLUTIONS** (*Chemistry: Standard Deviants*) – 28 min. c2000

CHEMISTRY (SuperStar Teachers High School Series) by Frank Cardulla – (SERIES) – c1997

- V2416.1 **TAPE 1** – 36 min. ea.
- Lesson 1: Introduction and Philosophy
- Lesson 2: Quantitative Reasoning in Life & Chemistry (Pt.1)
- Lesson 3: Quantitative Reasoning in Life & Chemistry (Pt.2)
- Lesson 4: Density
- Lesson 5: The SI (metric) System of Measurement
- Lesson 6: Converting between Systems of Measurement
- Lesson 7: The Mole Concept: Preliminary Ideas

CHEMISTRY (SuperStar Teachers High School Series) by Frank Cardulla – (SERIES) – (Continued)

V2416.2

TAPE 2 – 32 min. ea.**Lesson 8: The Mole****Lesson 9: Solving Mole Problems****Lesson 10: Avogadro's Hypothesis and Molar Volume****Lesson 11: Percent Composition and Empirical Formulas****Lesson 12: Solving Empirical Formula Problems****Lesson 13: Writing and Balancing Chemical Equations****Lesson 14: An Introduction to Stoichiometry****Lesson 15: Stoichiometry Problems**

V2416.3

TAPE 3 – 36 min. ea**Lesson 16: Advanced Stoichiometry****Lesson 17: Introduction to Molarity****Lesson 18: Solving Molarity Problems****Lesson 19: Additional Molarity Problems****Lesson 20: Basic Concepts of Chemical Equilibrium (Part I)****Lesson 21: Basic Concepts of Chemical Equilibrium (Part II)****Lesson 22: Stoichiometry Problems**

V2416.4

TAPE 4 – 32 min. ea.**Lesson 23: LeChatelier's Principle (Part I)****Lesson 24: Le Chatelier's Principle (Part II)****Lesson 25: An Introduction to Equilibrium Problems****Lesson 26: The Self-Ionization of Water****Lesson 27: pH: Strong Acids and Bases (Part I)****Lesson 28: pH: Strong Acids and Bases (Part II)****Lesson 29: Weak Acids and Bases****Lesson 30: Solubility Equilibria**

CHEMISTRY: THE STANDARD DEVIANTS (SERIES) – c2000

V3207.1

INTRODUCTION TO MATTER, THE ELEMENTS, AND UNITS OF MEASURE – 26 min.

V3207.2

CHEMICAL EQUATIONS AND ATOMIC AND MOLECULAR MASS – 20 min.

V3207.3

MOLES, PERCENT COMPOSITION, AND THE EMPIRICAL FORMULA – 31 min.

V3207.4

SOLUTION STOICHIOMETRY – 33 min.

V3207.5

THERMOCHEMISTRY – 17 min.

V3207.6

ATOMIC STRUCTURE – 27 min.

V3207.7

CHEMICAL BONDING – 18 min.

V3207.8

MOLECULAR GEOMETRY AND BONDING THEORIES – 18 min.

V3207.9

GASES AND STATES OF MATTER – 33 min.

V3207.10

PROPERTIES OF SOLUTIONS – 28 min.