

# **U.S. INTERNATIONAL CHRISTIAN ACADEMY**

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# LESSON PLAN

Grade/Course: CHEMISTRY I 2003340 Grade Level: 12<sup>th</sup>High School

A)TEXT BOOK: CHEMISTRY REVISED 5 EDITION STUDENT EDITION 2002C [Hardcover]ADDISON WESLEYPRENTICE HALL (Author) ISBN-10: 0130543845 | ISBN-13: 978-0130543844

Order No.: 1	Code:CHE2003	Class Type:Online
<b>Resources:</b> Text book Teacher works CD Teacher interactive online Links Sky Conference	Length: 1 year	Instructional Supports: Textbook, Magazines, Journals, Websites Links, Conference, Comprehensive Reading Plan, Discovery Channel, Public Television
Area:Science	Credits: 1	Total Numbers of class hours:300 hrs
<b>Type:</b> Mandatory	Standards: Florida Sunshine State Standards	<b>Prerequisite:</b> Students must have successfully passed a Science class in middle/high school.

#### **B) LESSON PLAN Description:**

This one-year course of emphasizes the study of the properties and nature of matter and energy. This course explores the periodic table, chemical bonding and including chemical equations, reaction kinetics, and the processes of reactions. This course offers a solid understanding of the fundamentals concepts of chemistry. Problem solving is presented logically one step at a time.

#### C) LESSON PLAN Objectives:

- 1. To develop in all students an appreciation and solutions to all types of Chemistry based interactions and problems.
- 2. topromotein all students an introduction to the study of Chemistry.
- 3. to promote the technology tools designed to inspire today's chemistry students.

#### **D) LESSON PLAN Contents**

Chapter 1 Introduction to Chemistry (Week: 1-2)

Chapter 2 Matter and Change (Week: 3)

Chapter 3 Scientific Measurement (Week: 4)

Chapter 4 Problem Solving in Chemistry (Week 5)

Chapter 5 Atomic Structure and the Periodic Table (Week: 6)

Chapter 6 Chemical Names and Formulas (Week: 7)

Chapter 7 Chemical Quantities (Week: 8)

Chapter 8 Chemical Reactions (Week: 9)

Chapter 9 Stoichiometry (Week: 10)

Chapter 10 States of Matter (Week: 11)

Chapter 11 Thermochemistry Heat and Chemical Change (Weeks: 12-14)

Chapter 12 The Behavior of Gases (Weeks: 15-16)

Chapter 13 Electrons in Atoms (Weeks: 17-18)

Chapter 14 Chemical Periodicity (Weeks: 19)

Chapter 15 Ionic Bonding and Ionic Compounds (Wewk:20)

Chapter 16 Covalent Bonding (Week: 21)

Chapter 17 Water and Aqueous Systems (Week: 22)

Chapter 18 Solutions (Week: 23)

Chapter 19 Reaction Rates and Equilibrium (Week:24)

Chapter 20 Acid and Bases (Week: 25)

Chapter 21 Neutralization (Week: 26)

Chapter 22 Oxidation- Reduction Reactions (Week: 27)

Chapter 23 Electrochemistry (Weeks: 28-29)

Chapter 24 The Chemistry of Metals and Nonmetal (Weeks: 20-31)

Chapter 25 Hydrocarbon Compounds (Weeks: 32-33)

Chapter 26 Functional Groups and Organic Reactions (Weeks: 34-36)

Chapter 27 The Chemistry of Life (Weeks: 37-38)

Chapter 28 Nuclear Chemistry (Weeks: 29-40)

#### F) LESSON PLAN References, Websites, Journals, Magazines and Books

1. Chemistry: Concepts and Problems: A Self-Teaching Guide (Wiley Self-Teaching Guides) [Paperback]

Clifford C. Houk and Richard Post (Authors)

2. Homework Helpers: Chemistry [Paperback] Greg Curran (Author)

3. Chemistry [Hardcover] by Steven S. Zumdahl (Author)

4. Chemistry, Grades 9 - 12 (The 100+ Series) Paperback – January 15, 1999 by Joan Distasio (Author)

#### H) Web Reference:

www.acs.org www.Chemistry.com www.chemistry24.com www.sciencespot.net/Pages/kdzchem.html www.chemtopics.com/links.htm www.iv.ac.uk/Chemistry/Links/links.html www.tvmuse.eu/tv-shows/Chemistry\_26950 www.chem.ucla.edu/chempointers.html www.chemtopics.com/wwwchem.htm www.101science.com/Chemistry.htm

#### I. Journals:

American Scientist Science Scientific American Chemistry Today

#### J.<u>Magazines:</u>

Smithsonian magazine, published by the Smithsonian Museum American Scientist magazine Discover magazine

#### **K.Organizations**

Science Foundation National Chemistry Association Association of Chemistry Teachers Discovery Channel

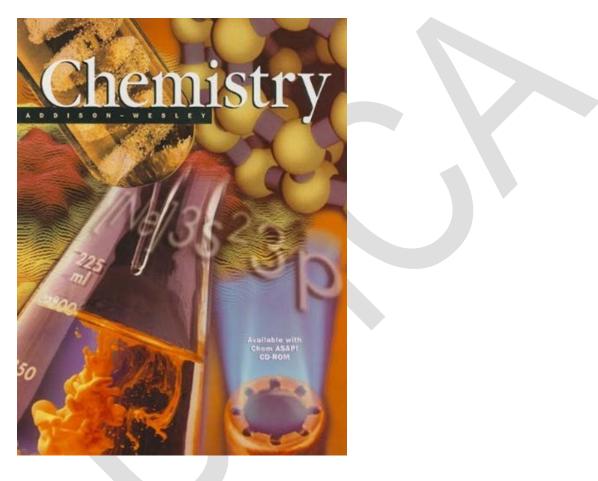
#### M. Comprehensive Reading Plan

Students are required to read at least 1 book or their equivalent during each class as independent reading at-home. Students must also read for 30 minutes at home as part of their daily homework assignment in all subjects. Check your Class Reading Assignment at <a href="http://www.USICAhs.org/CURRICULUM">www.USICAhs.org/CURRICULUM</a> and check free ebooks at <a href="http://www.openlibrary.org">www.openlibrary.org</a>.

### **Text Book Description**

Publication Date: February 1, 2001 | **ISBN-10: 0130543845** | **ISBN-13: 978-0130543844** | Edition: 5<sup>th</sup>. The #1 choice for high school Chemistry.

## BOOK:



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