CONTENT AREA: Science

GRADE/LEVEL:	COURSE TITLE:	COURSE NUMBER:
10-12	Chemistry I	40.451000

National Standard(s): Develop an understanding and abilities aligned with systems, order and organization and form and function (1). Develop understandings about scientific inquiry (2) Develop an understanding of structure and properties of matter and the interactions of matter and energy (4). Develop an understanding about science and technology (8). Develop understanding of science and technology in local, national, and global challenges (9). Develop an understanding of the nature of scientific knowledge (10).

OBJECTIVE(S):

1.Gives examples of industrial processes that have been derived from scientific research and describe the impact on society. Uses traditional reference materials to explore background and historical information regarding a scientific concept. Define and describe the properties of matter and energy. (QCC 1.1, 2.1, 4) ***(Patience, Cooperation, Diligence)***

PACING: **3 class periods and throughout the course**

ALIGNED INSTRUCTIONAL RESOURCES:

Modern Chemistry by Holt, Rinehart & Winston (MC): pp. 4A-4B; 4-24.
Homework Worksheet 1-1 through 1-7
Graphic Organizer 1-1

TECHNOLOGY INTEGRATION:

Title: **Chemistry as a Career**
Annotation: This page is beneficial for applied chemistry students. A part of the curriculum is devoted to exploring careers so students will find this page helpful. *(Entered 9/25/00 9:01:25 PM)*
URL: http://schmidel.com/ocm-mst/ocm-chem.cfm

Title: **Computer-Assisted Learning in Chemistry**
Annotation: A chemistry index searchable by keyword. Index has links to virtual textbooks, periodic tables, calculators, quizzes, and etc all on the same page. You cal launches a search for what you need from this page. *(Entered 9/25/00 8:51:05 PM)*
URL: http://members.aol.com/ChangChem/

Title: **Definitions of Chemical Terms**

SUGGESTED INSTRUCTIONAL STRATEGIES:

1. State and define branches of science.
2. Research the relationships between the various branches of science and a technological society using the Internet.
3. State and define branches of chemistry and careers in chemistry.
4. Research the relationships between the various branches of chemistry and society using the Internet.
5. Classify matter as: (a) heterogeneous/homogeneous, (b) mixtures, compounds, elements.
6. Use the periodic table to discuss the names and symbols of elements.
7. Distinguish between the physical properties and chemical properties of matter.
8. Classify changes of matter as physical or chemical.
9. Relate types of energy to physical and chemical changes.
10. State the law of conservation of matter and energy.