Chemistry Pacing Guide
1st Nine Weeks Fall Semester

I. The Language of Chemistry/Math Skills (12 days)

Resources: HRW, Modern Chemistry, Chapters 1, 2

Activities:
1. Lecture: branches of chemistry, scientific method, parts of experiment
2. Study of lab equipment and uses
3. Lab methods and skills
4. Lecture: matter, energy, conservation of mass/energy, properties and changes in matter, energy of chemical reactions, classification of matter, organization of periodic table
5. Study of scientific notation/exponents
6. Study of significant digits
7. Metric system and metric conversions
8. Quantitative problems and graphing
9. Lab: Glass tubing lab
10. Lab: CBL graphing lab
11. Lab: Density determination

Evaluation:
1. Lab grades
2. Math skills quiz
3. Lab equipment/safety test
4. Chapters 1, 2, tests

QCC Objectives: C.1 (science process skills)
C.3 (safety)
C.9 (matter)
C.15 (phases of matter)
C.16 (classification of matter)

II. Atoms (12 days)

Resources: HRW, Modern Chemistry, Chapter 3

Activities:
1. Lecture: Democritus, Dalton and atomic theory, atomic structure, history of discovery, atomic number and mass
2. Practice problems: average atomic mass, mole-mass, Avogadro's number
3. Study of elements and their symbols
4. Lab: CBL Heat of Fusion
5. Lab: Chlorine in Water
6. Lab: Law of Definite Composition (MgO Lab)