Maureen M. Drees

Chemistry Lesson Plans

January 22-26, 2018

Note: Wednesday is a 2:25 dismissal for professional development.

Essential concepts and skills emphasized in the week’s lessons will be highlighted.

Disciplinary Core Ideas

Life Science

1. From molecules to organisms: Structures and processes

2. Ecosystems: Interactions, energy, and dynamics

3. Heredity: Inheritance and variation of traits

4. Biological Evolution: Unity and diversity

Earth and Space Science

1. Earth’s place in the universe
2. Earth’s systems
3. Earth and human activity

Physical Science

1. **Matter and its interactions**
2. Motion and stability: Forces and interactions
3. Energy
4. Waves and their applications in technologies for information transfer

Science and Engineering Practices

1. Asking questions and defining problems
2. **Developing and using models**
3. Planning and carrying out investigations
4. **Analyzing and interpreting data**
5. Using mathematics and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in argument from evidence
8. **Obtaining, evaluating, and communicating information**

Cross-Cutting Concepts

1. **Patterns**
2. Cause and effect
3. Scale, proportion, and quantity
4. **Systems and system models**
5. **Energy and matter**
6. **Structure and function**
7. Stability and change

Monday--

* 1. Element of the Day
  2. Go over test, see semester grade
  3. Clean out folders, save periodic table
  4. Use diagrams of atoms on board to remember how ionic bonds were formed, then to show how covalent bonds will be formed
  5. Read 6.1 pages 190-198 over Covalent Bonds and complete 6.1 study guide

Tuesday—

* + 1. Element of the Day
    2. Check 6.1 study guide
    3. Demonstration—contrast rubber cement and the rubber of a basketball, talk about how vulcanization of rubber requires a covalent bond between sulfur and rubber
    4. Notes—Covalent Bonds, review definition of electronegativity (use etched glass) and its trends, examine electronegativity chart (figure 6 on page 194) together, model how a large difference produces ionic bonds, a medium difference produces polar covalent bonds, and a small difference produces non-polar covalent bonds

Wednesday—shortened periods

* + - 1. Element of the Day
      2. Finish notes on covalent bonds
      3. Chapter 6 Covalent Compounds—Vocabulary and Chapter Highlights

Thursday—

* + - * 1. Element of the Day
        2. Check Chapter 6 Covalent Compounds—Vocabualry and Chapter Highlights
        3. 3-Column Notes—Draw Lewis Structures with Single Bonds, guided practice

Friday—

Element of the Day

Review the differences between electron configurations and Lewis Structures, writing Lewis Structures for individual atoms and for compounds with single bonds

Single Bonds WS