Maureen M. Drees

General Science Lesson Plans

April 30-May 4, 2018

Note: Wednesday is a 1:25 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. Examine chemical reaction—potassium chromate being added to silver nitrate, figure out where the electrons moved
  2. Read, discuss, and take book notes over 17.1 Electric Charge and Static Electricity pages 474-481

Tuesday—

* + 1. Finish reading, discussing, and taking book notes over 17.1 Electric Charge and Static Electricity
    2. Examine electroscope and how it reacts with charge (rabbit fur, rubber)
    3. Popcorn Read
    4. Go Fishing

Wednesday—shortened periods

* + - 1. Brainstorm examples of conductors and insulators as pairs, then as whole class, record
      2. Classify statements about charging particles as friction, conduction, and induction with letters
      3. Record with definitions in discussion notes

Thursday—

* + - * 1. Practice fill-in-the-blanks about electric charges
        2. Ask What is the difference between something that is direct and something that is alternating
        3. Discuss, use to introduce section on electric current and electrical energy
        4. Read and discuss 17.2 Electric Charge and Electric Energy pages 482-5 (stop at bottom of 485), discuss and complete book notes, use a flashlight and the room’s lights as props

Friday—

Finish reading and taking book notes, if needed

Have students set up electrical circuits with a battery, light bulb, and wires

Go Fish