Maureen M. Drees

Physical Science Lesson Plans

February 12-16, 2018

Note: Tuesday afternoon Mr. Zobel will sub while I’m at the DLT meeting. Wednesday is a 2:25 dismissal for PLC work. Friday Mr. Zobel will sub while I’m at NGSS training at Avoca.

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. Go over Chapter 7 Test
  2. See semester grades to this point, journal
  3. Clean out folders, save periodic table
  4. Read and Discuss page 186 on Great Pyramid, relate to simple machines
  5. Have one student lift a heavy object, have another hold a heavy object, discuss who is doing work, how you can tell, record W=Fd formula in notes

Tuesday—Mr. Zobel subs 7th

* + 1. Soup Can Demo—use to help students see the difference between work and power
    2. Review W=Fd formula, add P=W/t formula to notes
    3. Work P=W/t problem that needs to be solved for time
    4. Work and Power WS

Wednesday—shortened periods

* + - 1. Check Work and Power WS
      2. Figure out situations in Work or Not Work? Chart on page 189
      3. Read 8.1 Work and Power pages 188-191 and take book notes

Thursday—

* + - * 1. Check 8.1 book notes
        2. Work and Power board problems
        3. Have students try to open pineapple can with fingers, then offer a can opener, discuss properties of simple machines, stress that work stays the same, but force is decreased if distance is increased
        4. Record in notes
        5. Brainstorm simple machines
        6. Read 8.2 What is a Machine? Pages 192-197 and take book notes

Friday—Mr. Zobel subs

Check 8.2 book notes

Notes—ME=WO/WI x 100, guided practice on problems, how to convert percentages to decimals and vice versa

Mechanical Efficiency WS