Maureen M. Drees

Physical Science Lesson Plans

January 8-12, 2018

Note: Wednesday will be 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. Assign new science numbers
  2. See book covers
  3. Check 6.1b book notes
  4. Sketch paths of projectile motion on board, students brainstorm examples of projectile motion
  5. Penny Projectile Motion lab, record data on lab sheet, hand in

Tuesday—

* + 1. Discussion Notes—Air Resistance, Terminal Velocity, Projectile Motion
    2. Demo—Egg in Buggy, discuss
    3. Notes—Newton’s First Law of Motion
    4. Read pages 145-147 and complete 6.2a book notes

Wednesday—shortened periods

* + - 1. Check 6.2a book notes
      2. Notes—Newton’s Second Law of Motion, model using F=ma equation
      3. F=ma WS

Thursday—

* + - * 1. Check F=ma WS
        2. Demonstration—Let a filled balloon go in the room, have students explain how it fits with Newton’s Third Law
        3. Finish reading pages 148-153 and complete book notes for chapter

Friday—

Check rest of book notes for chapter

Draw student numbers to review Newton’s Three Laws and how examples fit into laws

Have students give further examples of Newton’s Three Laws

Use ball and counter to demonstrate projectile motion again, brainstorm additional examples

Model how to write sentences describing examples of projectile motion with at least two details

Students write three descriptions for Monday