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General Science Lesson Plans

October 9-13, 2017

Note: Tuesday afternoon is District Leadership Team meeting. 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. Put criteria for descriptions on board, edit descriptions
  2. Save descriptions to hand in tomorrow before taking test
  3. Create class chart with physical and chemical properties
  4. Popcorn Read
  5. Prepare for test together

Tuesday—

* + 1. Hand in chemical changes descriptions
    2. Chapter 2 Test—The Properties of Matter
    3. Read or work quietly

Wednesday—shortened schedule

* + - 1. Go over Chapter 2 Test
      2. Go over semester grades to this point
      3. Clean out folders
      4. Use rubbing alcohol on students’ arms to introduce the idea of change of state
      5. Have students act out behavior of particles in solids—“Claire de Lune,” liquids—“Colonel Boogey,” and gases—“Mission Impossible”

Thursday—

* + - * 1. Record information about behavior of solids, liquids, and gases in discussion notes
        2. Read Three States of Matter pages 66-69 together, take book notes
        3. Use pepper in water and dishwashing detergent to illustrate surface tension

Friday—

To introduce behavior of gases—ask “Assuming that a beach ball is the same size and volume as a basketball, what do you think contains more particles of air?” (show basketball)

Read Behavior of Gases pages 70-71 together, take book notes

In discussion notes, draw four circles (high temperatures, low temperatures, high pressures, low pressures), draw what gas particles would look like under each condition

Journal Entry, share out “Gas particle behavior depends on…”