Maureen M. Drees

General Science Lesson Plans

August 28-September 1, 2017

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. Practice heading up papers and then handing in using general science numbers
2. Oral scavenger hunt of book, draw student numbers to share information
3. Twos or threes work to put puzzles together

Tuesday—

1. Read about photo on page 4, discuss what the puzzle activity we did class and the scientists’ work with using penguins as a model for what ships have in common, share that both use the scientific method which is part of our learning about physical science
2. Use Chrome books to find videos of penguins swimming
3. Brainstorm characteristics of penguins swimming
4. Begin to read and complete book notes together over Section 1—Exploring Physical Science

Wednesday—shortened schedule

1. Finish reading and taking book notes over 1.1, if needed
2. Students work in pairs or trios to divide cards into matter or not matter categories
3. Discuss as a whole class

Thursday—

1. Review differences between chemistry and physics
2. Students work in different pairs or trios to divide cards into chemistry or physics
3. Discuss as a whole class
4. Begin to read and complete book notes over 1.2 Scientific Methods

Friday—

1. Finish reading and taking book notes over 1.2
2. List the steps of the scientific method on board
3. Students put together paper helicopters and try them out
4. Brainstorm ways that the helicopters can be changed
5. Draw numbers to put students into groups
6. Groups come up with a question that they could answer about the paper helicopter and then make a hypothesis