

## Physical Science 7th grade

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Philipsburg-Osceola Middle School - Room 102

**Overview:** Physical Science is a combination of Physics and Chemistry. It is an introductory course for middle school students. This class will teach basic laboratory skills such as lab safety, metric measurement, and report writing. Students will gain an understanding of the Physical Science concepts that are tested on the 8th Grade PSSA test.

### Materials

- Textbook link [Physical iScience 2017](#)
- Google Classroom Notebook
- Students are responsible to bring a **folder, notebook, laptop, and a pencil.**

### Course Outline

- I. Nature of Science: Scientific Problem Solving                      Sept - Oct
  - A. Safety
  - B. Scientific Inquiry
  - C. Measurement and Scientific Tools
  - D. 3.1.7.A9
  
- II, Unit 1: Motion and Energy    Nov - Dec.
  - A. Describing Motion (chapter 1)
  - B. The Laws of Motion (chapter 2)
  - C. Work and Simple Machines (chapter 3)
  - D. Forces and Fluids (chapter 4)
  - E. 3.2.8.A1, 3.2.7.B1, 3.2.8.B1, 5.7.C.3.1, 5.7.C.3.1.1, 5.7.C.3.1.2, 5.7.C.3.1.3
  
- Unit 2: Energy and Matter    Jan - Feb
  - A. Energy and Energy Resources (chapter 5)
  - B. Thermal Energy (chapter 6)
  - C. Foundations of Chemistry (chapter 7)

- D. States of matter (chapter 8)
  - E. 3.1.7.A, 3.2.7.B, 4.1.7.C, 5.7.c.2.1.1, 5.7.c.2.1.2, 5.7.c.2.1.3, 5.7.B.3.3.1, 5.7.B.3.3.2
- Unit 3: Properties of Matter March
- A. Understanding the Atom (chapter 9)
  - B. The Periodic Table (chapter 10)
  - C. Elements and Chemical Bonds (chapter 11)
  - D. 3.2.6.A2, 3.2.6.A4, 3.2.7.A1, 3.2.7.A2, 3.2.8.A2
- Unit 4: Interactions of Matter April
- A. Chemical Reactions and Equations (chapter 12)
  - B. Mixtures, Solubility, and Acid/Base Solutions (chapter 13)
  - C. Carbon Chemistry (chapter 14)
  - D. 3.2.7.A3, 3.2.7.A4, 3.2.8.A3, 3.2.8.A4,
- Unit 5: Waves, Electricity, and Magnetism May
- A. Waves (chapter 15)
  - B. Sound (chapter 16)
  - C. Electromagnetic Waves (chapter 17)
  - D. Light (chapter 18)
  - E. Electricity (chapter 19)
  - F. Magnetism (chapter 20)
  - G. 3.2.6.B2, 3.2.6.B3, 3.2.6.B4, 3.2.7.B2, 3.2.7.B3, 3.2.7.B4, 3.2.7.B5

Link to Science Standards for Pennsylvania: <https://www.pdesas.org/StandardView>