

**ALLEGANY COUNTY PUBLIC SCHOOLS  
MIDDLE SCHOOL COURSE SYLLABUS  
2016-2017**

**Course Title:** 408 Physical Science **Teacher:** Kelly Egros

**Planning Time: Block 4:**1:28-2:45

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**Course Description:**

Physical Science (408) is a course that introduces the science skills and processes as they apply to chemistry and physics content knowledge identified in the Maryland State Curriculum. Chemistry content knowledge to be studied includes: structure and matter, conservation of matter, states of matter, physical and chemical changes. Physics content knowledge to be studied includes: mechanics, thermodynamics, electricity and magnetism, and wave interaction.

**Text/Materials of Instruction – Required for Daily Class:**

- Textbook: Glencoe Books K-O: The Nature of Matter; Chemistry; Motion, Forces and Energy; Electricity and Magnetism; Waves, Sound and Light
  - Other Materials: Loose leaf paper, Pencil and pen, 3 Ring Notebook, composition notebook
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**Grading/Evaluation:**

**County Grading Scale– Marking Period**

Percentage	Mastery Level	Grade
100% – 90%	Outstanding	A
89% – 80%	Above Satisfactory	B
79% – 70%	Satisfactory	C
69% – 60%	Partial	D

**Teacher’s Grading Structure – Marking Period**

Assignment Categories	Percentage of Grade
Daily Work	25%
Laboratory	30%
Quizzes/Tests	20%
Projects/Papers	25%

Grades will be recorded in the ASPEN online grading program at a minimum of every two weeks. Teachers will prepare the Allegany County Public Schools Interim Report for parents making a request because of lack of access to online grades. Teachers will notify parents/guardians at any time a student’s performance falls below satisfactory.

**Semester Grade**

The semester grade is determined by taking the average of the two marking period grades.

**Final Grade (grades 6 – 12 only)**

The final grade is determined by taking the average of all of the marking period grades.

**Absences/Make-Up Work Procedures:**

Students are responsible for requesting and completing work missed due to absences. Students shall be permitted two (2) school days to complete work missed during each absence. These make up days will begin the day after the student returns to school. This policy does not automatically extend due dates for long-term assignments unless approved by the principal. Principals are authorized to withhold credit(s) for excessive absences or excessive tardiness.

**Homework Type, Frequency & Purpose:**

Daily work that has been not been completed by the end of the class period will be completed at home. This may occur occasionally.

**Additional Expectations:**

Students will follow all school rules and be expected to participate in class on a daily basis. Students will be given the opportunity to access their textbook online. This will enable students to leave books at school overnight if internet is available at home.

# Physical Science Course – 8<sup>th</sup> Grade Science Overview Updated 8/15/16

First Quarter	Second Quarter
<p><b>AMS: Science Skills and Process Assessment</b></p> <p><b>I. Introduction to Physical Science</b></p> <ul style="list-style-type: none"> <li>A. What is Physical Science?</li> <li>B. Scientific Inquiry</li> <li>C. Safety Laws</li> <li>D. What is Technology?</li> </ul> <p><b>II. The Nature of Matter (Book K)</b></p> <ul style="list-style-type: none"> <li>A. Atoms, Elements, compounds, and Mixtures-Chapter 1                             <ul style="list-style-type: none"> <li>1. Models of Atom</li> <li>2. Simplest Matter</li> <li>3. Compounds and Mixtures</li> </ul> </li> <li>B. States of Matter-Chapter 2                             <ul style="list-style-type: none"> <li>1. Matter-describing &amp; measuring</li> <li>2. Changes of State</li> <li>3. Behavior of Fluids-gas behavior, pressure,</li> </ul> </li> <li>C. Properties and Changes of Matter-Chapter 3                             <ul style="list-style-type: none"> <li>1. Physical and Chemical Properties</li> <li>2. Physical and Chemical Changes</li> </ul> </li> <li>D. The Periodic Table-Chapter 4                             <ul style="list-style-type: none"> <li>1. Introduction to the Periodic Table</li> <li>2. Representative Elements</li> <li>3. Transition Elements</li> </ul> </li> </ul> <p><b>Benchmark I</b></p> <p><b>III. Chemistry (Book L)</b></p> <ul style="list-style-type: none"> <li>A. Atomic Structure and Chemical Bonds- Ch. 1                             <ul style="list-style-type: none"> <li>1. Why do Atoms combine?</li> <li>2. How Elements Bond-ionic, covalent</li> </ul> </li> <li>B. Chemical Reactions-Chapter 2                             <ul style="list-style-type: none"> <li>1. Chemical Formulas and Equations</li> <li>2. Rates of Chemical Reactions</li> </ul> </li> <li>C. Substances, Mixtures and Solubility-Chapter 3                             <ul style="list-style-type: none"> <li>1. What is a Solution?</li> <li>2. Solubility</li> <li>3. Acidic and basic solutions</li> </ul> </li> </ul> <p><b>Benchmark II</b></p> <p><b>End of 9 Week Grading Period</b></p>	<p><b>I. Motion, Forces, and Energy (Book M)</b></p> <ul style="list-style-type: none"> <li>A. Motion and Momentum-Chapter 1                             <ul style="list-style-type: none"> <li>1. What is motion?</li> <li>2. Acceleration</li> <li>3. Momentum</li> </ul> </li> </ul> <p><b>VI. Motion, Forces, and Energy (Book M)</b></p> <ul style="list-style-type: none"> <li>A. Force and Newton’s Laws-Chapter 2                             <ul style="list-style-type: none"> <li>1. Newton’s First Law</li> <li>2. Newton’s Second law</li> <li>3. Newton’s Third Law</li> </ul> </li> <li>B. Work and Simple machines-Chapter 4                             <ul style="list-style-type: none"> <li>1. Work and Power</li> <li>2. Using Machines</li> <li>3. Simple Machines</li> </ul> </li> <li>C. Energy and Energy Resources-Chapter 5                             <ul style="list-style-type: none"> <li>1. What is Energy?</li> <li>2. Energy Transformations</li> <li>3. Sources of Energy</li> </ul> </li> <li>D. Thermal Energy-Chapter 6                             <ul style="list-style-type: none"> <li>1. Temperature and Thermal Energy</li> <li>2. Heat</li> </ul> </li> </ul> <p><b>Benchmark III</b></p> <p><b>VII. Waves Sound and Light (Book O)</b></p> <ul style="list-style-type: none"> <li>A. Waves-Chapter 1                             <ul style="list-style-type: none"> <li>1. What are Waves?</li> <li>2. Wave Properties</li> <li>3. Wave Behavior</li> </ul> </li> <li>B. Sound-Chapter 2                             <ul style="list-style-type: none"> <li>1. What is Sound?</li> </ul> </li> <li>C. Electromagnetic Waves-Chapter 3                             <ul style="list-style-type: none"> <li>1. Nature of Electromagnetic Waves</li> <li>2. The Electromagnetic Spectrum</li> </ul> </li> <li>D. Light, Mirrors, and Lenses-Chapter 4                             <ul style="list-style-type: none"> <li>1. Properties of Light</li> <li>2. Reflection and Mirrors</li> <li>3. Refraction and Lenses</li> <li>4. Using Mirrors and lenses</li> </ul> </li> </ul> <p><b>VIII. Electricity and Magnetism (Book N)</b></p> <ul style="list-style-type: none"> <li>A. Electricity-Chapter 1                             <ul style="list-style-type: none"> <li>1. Electric Charge</li> <li>2. Electric Current</li> <li>3. Electric Circuits</li> </ul> </li> <li>B. Magnetism-Chapter 2                             <ul style="list-style-type: none"> <li>1. What is Magnetism?</li> <li>2. Electricity and Magnetism</li> </ul> </li> </ul> <p><b>Benchmark IV</b></p> <p><b>Science Skills and Process Assessment</b></p> <p><b>End of 9 Week Grading Period</b></p>