Instructor Information:

Teacher: Mrs. Basile  
Room: Belle Vernon Area High School, Room 412  
Contact: Phone: 724-808-2500; ext. 2412  
Email: Nicole.basile@bellevernonarea.net  
Website: http://bellevernonarea.net/Domain/160  
Required Text: Glencoe: Physical Science with Earth Science  
Additional Resources:  
  http://studyisland.com  
  http://ck12.org  
  http://www.nexuslearning.net

Course Description:

Physical Science is a full-year course that investigates the fundamentals of Physics, Chemistry, Astronomy, and Earth Science. Math skills will be called upon as force, motion, and energy are investigated. The properties of matter, atomic structure, and chemical reactions allow the student to acquire an understanding of the world around them at a microscopic level. Electricity, magnetism, and waves will be discussed as the student learns how these are formed and the features that characterize them. The class also incorporates topics concerning the physical processes on earth, and the motions, characteristics, and forces in space.

Course Objectives:

By the end of this course, the successful student will be able to:

1. Explain the relationship between the structure and properties of matter  
2. Explain that matter is made out of atoms and that atoms are composed of even smaller particles  
3. Use the periodic table to understand the characteristics of an atom or element  
4. Analyze energy and the conservation of energy  
5. Use Ohm’s law to find resistance and current in an electrical system  
6. Use the principles of motion and force to solve real-world problems  
7. Evaluate simple systems that incorporate the principles of force and motion
8. Explain that acceleration is the rate that the velocity of an object is changing
9. Describe electricity and explain how it flows and what it is made of
10. Correlate force, motion, and energy with processes around us

**Academic Honesty:**

Any work submitted by the student shall be his/her own. Work taken from others shall be deemed as unacceptable. Any doubts will initiate the completion of an alternative assignment or a zero on the required effort, depending on the severity of the infraction.

**Class Policies and Expectations:**

1. Cell phones and other electronic devices shall not be used during lessons. If the student chooses to use their device during the class period, the student is then subject to a write-up and possible In-School-Suspension “ISS”.
2. Students will report to class prepared. All class materials should be in the student’s possession and ready for each class.
3. Students are responsible for the work that is missed while they were absent. Students will take the initiative to ask the teacher what was missed the previous day and complete any assignments that were given.
4. Students will be respectful to others in the classroom. (See the bullying policy in the student handbook for further explanation.)
5. Students are expected to be attentive, cooperative, and involved.
6. Late work will earn half credit. No credit will be given to assignments that are more than three days late.
7. Cheating and/or copying another student's work will result in the student earning a zero for the assignment.
8. Food and drink are not permitted in the classroom.
9. Students are expected to report to class before the late bell rings. Four tardy arrivals will result in a write-up and possible In-School-Suspension “ISS”.

**Course Grading Criteria:**

All quizzes, tests, and projects will be graded according to the Belle Vernon Area School District grading policy. Total points will be accumulated for all evaluated efforts in this class rather than having letter grades per each effort. Grades will also be weighted. All BVAHS classes will be grading on a 90-10 system. This means 90% of your grade will be figured from formal assignments such as tests, quizzes, projects, and graded assignments and 10% will be figured from informal assignments such as in-class activities, class participation, daily questions, and other general assignments.

The grading scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
</tr>
</tbody>
</table>
Assignments per Quarter:

The majority of the class grade will be based upon formal assessments such as tests, quizzes, and other graded assignments. Small projects, partner activities, homework assignments, daily questions, and other class activities will also factor into the student’s grade.

Students should begin each new class day by checking the board for the “daily question”. These daily questions will be copied and completed at the beginning of each class as the teacher completes the attendance for the class. These daily questions will be collected weekly and graded.

Aside from the assessments listed above, each quarter (nine weeks) will end with a quarterly assessment. The students will be responsible for cumulative topics and ideas learned up to that point in the class.

Assignments and homework will be assigned to assess student understanding and to act as reinforcement to the lessons that are given in class. Failure to complete the assignments may result in missing an opportunity to: review topics, learn new ideas, or earn points.

*Assignments or assessments may vary due to pace of class and individualized instruction.

Study Island:

Students will be expected to take advantage of the Study Island Preparation Software aligned to the Keystone Exam Standards, AP Course Competencies, and SAT/ACT Preparation. The students that invest their time utilizing this program have overwhelmingly performed better than those that do not. If you are unable to have access to a computer or internet for this requirement, there are ample opportunities during the school day to utilize laptops or the computers in the Library.

Academic Standards:

Students will be reacquainted with the Pennsylvania Academic Standards that have been adopted by the Department of Education, along with the Common Core Standards that are in the process of being implemented nationwide. Students will be made aware of the importance of the standards and the efforts to meet them.

Schoolwires (Website):

My website (http://bellevernonarea.net/Domain/160) will be updated every Friday. Course Topics, Assignments, and Quizzes and Tests are also posted weekly.
**Grades:**

Grades will be updated every week on the Home Access Center ([http://bvshomeaccess.spihost.com/](http://bvshomeaccess.spihost.com/)). If you lost or cannot remember log in information, please contact our Child Accounting Department at 724-808-2500 ext. 1108.

**Course Outline:**

<table>
<thead>
<tr>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I.</strong> The Nature of Science</td>
<td><strong>I.</strong> Weather and Climate</td>
<td><strong>I.</strong> Electricity and Magnetism</td>
<td><strong>I.</strong> Stars and Galaxies</td>
</tr>
<tr>
<td>-scientific method</td>
<td>-earth's atmosphere</td>
<td>-electric charge</td>
<td>-star formation</td>
</tr>
<tr>
<td>-metric system</td>
<td>-weather</td>
<td>-electric current</td>
<td>-fusion</td>
</tr>
<tr>
<td>-laws and theories</td>
<td>-climate</td>
<td>-electrical energy</td>
<td>-stellar evolution</td>
</tr>
<tr>
<td></td>
<td>-earth's changing climate</td>
<td>-what magnetism is</td>
<td>-H-R diagram</td>
</tr>
<tr>
<td><strong>II.</strong> Motion, Acceleration, and Forces</td>
<td><strong>II.</strong> Heat and States of Matter</td>
<td><strong>II.</strong> Sun-Earth-Moon System</td>
<td><strong>II.</strong> Energy Sources</td>
</tr>
<tr>
<td>-describing motion</td>
<td>-temperature and thermal energy</td>
<td>-gravity, rotation, revolution</td>
<td>-energy</td>
</tr>
<tr>
<td>-acceleration</td>
<td>-states of matter</td>
<td>-tides, moon phases, eclipses</td>
<td>-nonrenewable resources</td>
</tr>
<tr>
<td>-motion and forces</td>
<td>-transferring thermal energy</td>
<td>-seasons and climate</td>
<td>-global warming and greenhouse effect</td>
</tr>
<tr>
<td></td>
<td>-atmosphere</td>
<td></td>
<td>-renewable resources</td>
</tr>
<tr>
<td><strong>III.</strong> Laws of Motion</td>
<td><strong>III.</strong> Properties of Atoms and the Periodic Table</td>
<td><strong>III.</strong> Earth's internal Processes</td>
<td><strong>III.</strong> Earth's Changing Surface</td>
</tr>
<tr>
<td>-the first two laws of motion</td>
<td>-structure of the atom</td>
<td>-structure of the internal earth</td>
<td>-water cycle</td>
</tr>
<tr>
<td>-gravity</td>
<td>-the periodic table</td>
<td>-convection, tectonics, volcanism</td>
<td>-weathering, erosion, deposition</td>
</tr>
<tr>
<td>-the third law of motion</td>
<td></td>
<td>-magnetic field</td>
<td>-soil and groundwater</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-geologic time</td>
</tr>
<tr>
<td><strong>IV.</strong> Work and Machines</td>
<td><strong>IV.</strong> Chemical Bonds and Reactions</td>
<td><strong>IV.</strong> Waves</td>
<td><strong>IV.</strong> Waste, Pollution, and the Effects on the Environment</td>
</tr>
<tr>
<td>-work</td>
<td>-types of bonds</td>
<td>-nature of waves</td>
<td>-types of pollution</td>
</tr>
<tr>
<td>-using machines</td>
<td>-writing formulas and balancing equations</td>
<td>-wave properties</td>
<td>-sources of pollution</td>
</tr>
<tr>
<td>-simple machines</td>
<td>-classifying chemical reactions</td>
<td>-behavior of waves</td>
<td>-effects of pollution</td>
</tr>
<tr>
<td></td>
<td>-chemical changes</td>
<td></td>
<td>on the earth</td>
</tr>
</tbody>
</table>
Course Policy - Physical Science 2015-2016

Please sign to indicate that you have read and understand the expectations for the class this year as stated in the course syllabus and return it to the teacher.

Student’s Name ______________________________________________________

Student’s Signature ___________________________________________________

Student’s Email Address: ______________________________________________

Parent/Guardian’s Name ______________________________________________

Parent/Guardian’s Signature __________________________________________

Date______________________________________________________________

Parent/Guardian’s Email: _____________________________________________

Parent/Guardian’s Home phone number: _________________________________

Parent/Guardian’s Work phone number: _________________________________

Parent/Guardian’s Cell phone number: _________________________________

Would you (the parent/guardian) like to receive email updates about the class?____

Which phone number would you prefer the teacher to call to contact you?____

What is the best time to contact you? ________________________________

Comments or any other information you would like to share? ______________

____________________________________________________________________

____________________________________________________________________

Does your child have access to a computer or the internet at home to complete homework assignments? 

____________________________________________________________________