



Physical Science Syllabus

2015-2016

Instructor Information:

Teacher:	Mrs. Basile
Room:	Belle Vernon Area High School, Room 412
Contact:	Phone: 724-808-2500; ext. 2412 Email: Nicole.basile@belleversonarea.net
Website:	http://belleversonarea.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:

A	-	90-100	C	-	70-79	F	-	0-59
B	-	80-89	D	-	60-69			

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://bellevnonarea.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/>). If you lost or cannot remember log in information, please contact our Child Accounting Department at 724-808-2500 ext. 1108.

Course Outline:

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

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?
