Physical Science

The Villages High School
Ms. Borrowman
emma.borrowman@tvcs.org
352-259-3777 ext.1138

Course Description:
The purpose of Physical Science is to provide students with detailed understanding of the nature of science. Science is a multi-faceted and complex process. Students engage in experiments and learn to use the scientific method.

Course Content:
Students will cover the following topics in the scope of this course in keeping with Florida's NGSSS:

Applied Math, Nature of Science, Mechanics, Electromagnetism, Atomic Theory, and Chemistry.
See appendix A for expanded explanations of standards and topics

Textbook: Physical Science by

Daily Supplies:
Please bring with you to class DAILY: a writing utensil, a graph paper notebook, a scientific calculator, your charged chromebook and charger in case of battery failure.

Teacher Connection and Google Classroom:
Teacher connection will be used to post general information about the class and homework. This class will utilize Google classroom almost exclusively for online assignments, literacies, lab reports, bellringers, class notes, online quizzes, and tests

Getting Help:
If you have questions about anything, **PLEASE ASK FOR HELP.** The best way to get help is either before or after school. Please get help as soon as you are confused with anything. Physical science is a subject that builds on itself and becomes more complex as the year progresses. If you wait until the day of the test to ask questions, you will have a hard time catching up.

Grades:
Grades in class will be determined by a combination of homework, in-class assignments, tests, labs, bell ringers and projects. Grades will be weighted. Ninety (90) percent of the grade will come from graded assignments and test, while the remaining ten (10) percent will be from completion points in homework and bell ringers. **Individual progress reports will NOT be printed because this information is available to you at any time online.**

Homework:
Homework is assigned for the purpose of allowing you to practice a particular learning goal. It is expected that you will do each assignment. Homework is due at the start of class on its due date and will be graded based on effort. Late homework is not accepted, this included homework that is done, but not with you. I reserve the right to collect and grade any homework assignment.

Tests:
Tests are scheduled at the start of each unit. Check the unit plan to see when these will occur. Any changes to the plan will be posted. Tests are summative assignments to assess what you've learned throughout a unit.

Internet Use Policy:
Students are not allowed to use the internet freely in this class, only on assigned websites and links. Accessing inappropriate websites (Reddit, Tumblr,, Facebook, YouTube, Games etc.) will not be tolerated. Violation of this offense will result in detention and loss of points, any further abuse will result in a referral and possibly in school suspension and/or loss of internet privileges.

Academic Honesty:
You are responsible for your own learning. Copying someone else's work is dishonest and does not help you to learn the material. If you choose to cheat in any way, then you will earn a zero on the assignment and be referred to the office.

Lab Procedures:
This course is a hands-on course and we will be doing lab work. The following rules will be enforced:

1. Students will use all equipment properly and will treat all equipment with care.
2. Students will use safe practices at all times when working in the lab.
3. There is limited equipment in the lab, so students must share the equipment and tools and make effective use of the time when they have the tools.
4. Students will act professional in the lab at all times.
5. If a component or tool is broken, the student will tell the teacher immediately.
6. If a student intentionally damages any equipment he or she will be responsible for replacement.
7. There is a limited amount of time in the labs, so students are expected to work diligently while in the labs to ensure completion of the required lab exercises.
8. The expectation is that the lab will be cleaned up after every class to get ready for the next class section.
9. All equipment belonging to the lab MUST stay in the lab at all times.
10. Students are NOT to bring in outside equipment to work on in the lab. The only equipment the students will work on this year is the equipment within the lab.
11. Students should not bring their own tools to class, as the teacher cannot be responsible for ensuring their whereabouts after class is over.

Late Work:
I expect you to be responsible enough to turn in assignments or complete projects on the day they are due. There will be an absolute due date for each lab- any assignments turned in after that time will not be accepted, resulting in a zero.

Turning in Assignments:
All assignments, labs, tests, etc. are to be turned into the designated location. ****Do not set things on the desk because they could be covered up quickly with other items and not be uncovered for weeks at a time. ****

Electronic Devices:
No phones, ipods, earbuds, headphones, etc. should be visible during class. Personal electronics are not to be used as calculators or stopwatches. Failure to comply will result in detentions, parent contact, and in the case of chronic issues, referrals.

Food/Drink:
This is a science class where sensitive equipment will be used, therefore all food is prohibited. **Bottles of water** are allowed, but all other liquids (coffee, Gatorade, etc.) are forbidden.

Exams:
Exams will only be given during your assigned exam period. Any exceptions will be made according to the policy set by TVHS. On your exam, some of the questions may be pulled from previous tests or learning checks while the rest will be similar to problems done in class, on your homework, or in labs. Exams account for 10% of your grade.

Classroom Management Plan

I. Behavior Standards

This classroom is a workplace, a learning environment that requires a business-like atmosphere. The goal is to create a place and atmosphere where you, your fellow students, and I can work and learn together. Every individual student shares in the responsibility for maintaining a climate where everyone's work and efforts are respected, supported, and encouraged, and where everyone respects the need to concentrate in order to create quality work and meet high standards.

As students in our learning community, you are expected to:

1. *Help create a courteous, cooperative atmosphere where everyone can concentrate on his/her work.*
2. *Take responsibility in making decisions regarding your work.*
3. *Keep your mind focused on your work and work hard all the time.*
4. *Be polite, courteous, and considerate of one another and one another's space at all times.*
5. *Support, encourage, and assist your fellow students in their learning.*
6. *Come to class on time every day and be prepared to participate actively.*
7. *Use behavior and language at all times that is appropriate to school.*
8. *Talk in a respectful, conversational tone and listen courteously when other students are talking or when the teacher is addressing the class or asking questions.*
9. *Respect the speaker, whether it is the teacher, another staff member, or another student. Do not talk while another person is addressing the class.*
10. *Do everything possible to ensure that classroom furniture, equipment, and materials are properly conserved and cared for, displaying good stewardship.*
11. *Do not eat in the classroom. Drink only bottled water.*
12. *Turn off your electronic devices before coming to class and put them away in your backpack.*
13. *Comply with VHS dress code policy.*
14. *Comply with all district and school expectations and regulations.*

II. Class Procedures

While every day can vary some in terms of agenda, the following is a summary of some of the procedures this class will routinely follow:

1. ***Entering the classroom:*** You are to enter the classroom quietly and be in your seat when the bell rings. Pick up any handouts from the table and look at the board. Follow the instructions on the board and review the lesson's learning goal.
2. ***Bellringer:*** Every class will begin with a bellringer. As soon as the bell rings to signal the start of class, look to the board and front of the room for any written or verbal instructions to begin your work. Bellringers, participation, and other daily grades will be given EVERYDAY.
3. ***Restroom/Water Fountain Use:*** Please use them between classes. You will only be permitted to use the restroom during class in the case of an **emergency** or if you have documented medical needs that require more frequent restroom visits. EMERGENCIES DO NOT OCCUR every day or even once a week.
4. ***Leaving the classroom:*** Do not pack up or leave your seat until I dismiss the class. I will dismiss you; not the bell. Also, once class begins, no students are permitted to leave the classroom without permission under any circumstances.

5. ***Absences Make-up Work:*** Whether the absence is excused or unexcused, you can make up homework and tests. It is your responsibility to make up any missing assignments within **three (3) days** of your return to school. When coming back from an absence, check the google classroom. There you will find what we did in class while you were absent. If after visiting this page, you still have questions and/or doubts, feel free to speak with me before or after school, **not during class time**. You are welcome to use the Media Center computers before or after school**.**

6. ***Make-Up Tests:*** If you are absent for a quiz or a test, come prepared to take it on your return to school. If you have been absent to school for several days and you feel that you are not prepared, please see me to schedule a make-up date. **It is your responsibility to contact me in order to make up a test. Also, papers and projects that were assigned a week or more prior to your absence will still be due on the assigned due date regardless of whether you are in school. If you are absent on such a date, it is your responsibility to submit the paper or project via email or by having someone deliver your work to school on the due date.**

7. ***Tardies and Late Arrivals:*** If you arrive tardy to school after the bell rings, you should report to the front office for an admit slip. If you are more than a minute late, you will be categorized as being somewhere in the building without permission or be documented for a class cut. If you arrive to class one second after the bell rings to signal the start of class, you are considered tardy. The following is a breakdown of how tardies will be handled:

How many tardies can I have?

1. On **every** unexcused tardy	**Zero** on daily bellringer
2. On your **second and every subsequent** unexcused tardy in a semester	**Parent Contact, Detention**
3. On your **tenth** unexcused tardy In a semester	Referral

III. Consequences

If you choose notto follow any of these behavior standards or class procedures, there will be consequences to accept for your own actions. Of course, severe behaviors will warrant a referral to administration immediately. Lower level disruptions or violations can be handled with detentions and/or parent contact. I reserve the right to use my discretion in choosing how to handle infractions when possible but will adhere to school policy and procedures when making these decisions.

IV. Conclusion

I would like to create a positive learning environment for all students in my classroom. I would like students in my class consistently. Please help me help your child be successful by encouraging them to come to class, be on time, be ready to learn, and by reviewing the topics they learned in class. Although I don't assign a great deal of homework, students should review what they learned in class each evening. Please feel free to contact me with any questions or concerns about my class or about a specific assignment. Email is probably the easiest for me, but I can call you before or after school. If you'd like to set up a conference, please contact the guidance counselor. I look forward to a great year!

Contact Information

Ms Emma Borrowman
Physics and Physical Science
VHS. rooms 138
emma.borrowman@tvcs.org
(352)-259-3777, ext. 1138

THE VILLAGES HIGH SCHOOL

MS. BORROWMAN

PLEASE REVIEW THE SYLLABUS AND CLASSROOM MANAGEMENT PLAN LOCATED ON MY TEACHER CONNECTION PAGE, SIGN THIS DOCUMENT WHERE INDICATED BELOW
AND RETURN IT TO THE TEACHER AS INSTRUCTED.

My child and I have reviewed the 2016-2017 Syllabus and Classroom Management Plan for **Mrs. Nisbet's** class and understand the behavior standards, class procedures, and disciplinary consequences that will be applied in her classroom.

Date:

Student Name:
(Please Print)

Student Signature:

Parents Name:
(Please Print)

Parents Signature:

Please list below the preferred method of contact. By providing your email address you are giving me permission to contact you by email concerning your child. This is my preferred method of contact as I am not always available to speak to your during the school day but I can answer email quickly between classes, etc. If the matter is of a sensitive nature, I will contact you by email to ask when it would be possible to call you or to schedule a parent conference.

Please <u>print</u> your email address, home, work and cell phone numbers.

Which Method is Preferred?
☐
☐
☐
☐

Parent E-mail:

Home Phone #:

Work Phone #:

Cell Phone #:

Appendix A

Physical Science

Math
Including but not limited to: solving word problems, reasoning, supported arguments, graph and chart making, graph and chart interpretation, checking for reasonability of answers, understand and use the metric system, and dimensional analysis

Nature of Science
Including but not limited to: how to conduct experiments, lab safety, what is and is not science, how to judge scientific sources for validity, develop curiosity about the natural world, understand and use the scientific method, research scientific problems, distinguish between laws and theories, make informed decisions based on science, understand and utilize the difference between evidence and inference, understand and identify pseudoscience, explain why scientific explanations change over time, understand and use models of scientific phenomena

Mechanics
Including but not limited to: analyzing the motion of an object as functions of time, understand and apply Newton's three laws of motion, understand and apply gravitational laws, understand and use the laws of conservation of energy/momentum, understand and use physics formulas to solve problems algebraically.

Electromagnetism
Including but not limited to: understanding conductors, semiconductors, and insulators, understand and use current, voltage, resistance, and power, understand and use wavelength, frequency, and energy, understand the doppler effect, explain and use the speed of light in a vacuum.

Atomic Theory
Including but not limited to: understand the four states of matter, understand physical and chemical properties, explore and explain protons, neutrons, and electrons, use and understand the periodic table, understand and create molecular formulae, understand and use acids and bases, understand water’s properties that make it essential to life, use kinetic molecular theory to solve problems with gasses and phase transitions, relate temperature to kinetic molecular theory.

Chemistry
Including but not limited to: understanding chemical reactions, explain concentration, temperature, and catalysts, distinguish between exothermic and endothermic, understand the water, carbon, and nitrogen cycles, understand how photosynthesis works, understand how aerobic and anaerobic cellular respiration. Understand how solids, liquids, and gasses work and how they change states of matter