

# Physics Syllabus

2022-23

Teacher: Helen Marks

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Room: 219

Canvas: <https://madisonschoolsva.instructure.com/>

**Welcome! I am honored to have you in my Physics class!**

*Motion, forces, electricity, and light are the topics we cover in Physics. We will be doing labs, projects, contests, and games to learn and have fun. My goal is to impart an understanding of physics that you will be able to apply in your careers or at least have fond memories of in the future. Physics can be a challenging subject, so please inform me immediately when you have difficulty.*

## **Classroom Values:**

1. *Students are expected to be on time. Please place backpacks and lunch bags, etc., under your table keeping the desk area and walkways clear. Please go to the restroom before class starts. Please stay in the seating area at the end of class. We do not line up by the door waiting for the bell.*
2. **Cell phones:** *Cell phones should always be in your backpack or in a closet pocket. Please see MCHS Student Personal Electronic Device Use in your student handbook. Sequence: First warning, second warning: parent is called, third warning: Office Disciplinary Referral will be issued by the teacher and the teacher will notify home. "Should a student refuse to put away their personal electronic device an administrator will escort the student to the front office for a support conference and notify the parent. A disciplinary referral will be issued at this point regardless of offense warning number as a result of refusing to comply with school rules."*
3. **Hats:** *Ball caps and knit hats may be worn. Hoods are not to be worn.*
4. **Ear Buds:** *Ear Buds should not be worn during class time.*
5. **Referrals:** *Referrals are issued when class rules are not followed. Please see your Student Handbook.*
6. *Be Respectful, Responsible & Ready to Learn*

## **Academic Expectations:**

\* Course Text: PASCO Education: Essential Physics 3rd edition:

[www.student.pasco.com](http://www.student.pasco.com)

**Access Code: USVA067921-EP3-SB-0628-JCPD6**

\* Course Resources: [The Physics Classroom](http://www.physicsclassroom.com/) :

<https://www.physicsclassroom.com/>

**PhET Interactive Simulations:** <https://phet.colorado.edu/>

\* **Course Materials:** binder, paper, pencils, protractor, ruler, scientific calculator.

\* **Grades: 60%:** Tests, Projects, Labs and **40%:** Homework/Classwork

\* **Assignments/practice work** is important just as in math class. We do math almost every day, which includes Algebra and a little Trigonometry. We use the G.U.E.S.S. Method to organize our thoughts and make the word problem process easier for you to complete and for me to grade. When you are absent please check Canvas. Please let me know when you have difficulty by sending an email. Don't park at speed bumps! I'm here to help.

\* **Chapter tests** will include short answer concept questions and word problems where you will show all your steps and work. This will include the GUESS method and can include a sketch as per instructions.

\* **Check PowerSchool regularly** for missing assignments.

If you cannot get into PowerSchool please contact Mrs. Teal in Guidance:  
kteal@madisonschools.k12.va.us

\* **Late Work:** Please have your work turned in on due dates. There will be late penalties for work submitted after the due date.

\* **Please submit your own work.** Send me an email with any questions. Copying from the internet or other students, etc., is not an acceptable practice.

**Communication:** *The best way to contact me is by email. I will do my best to respond within 24 academic hours. Any parent who would like a phone call please let me know by email and I will do my best to call by the end of the school day.*

### **Topics:**

**Unit 1: Science and Physics:** 1. Science of Physics

2. Physical Quantities and Measurement

**Unit 2: Force & Motion:** 3. Position and Velocity

4. Acceleration

5. Forces and Newton's Laws

**Unit 3: Motion in Two Dimensions:** 6. Motion in Two Dimensions

8. Static Equilibrium

**Unit 4: Energy and Momentum:** 9. Work and Energy

10. Conservation of Energy

11. Momentum and Collisions

12. Machines

**Unit 5: Waves and Sound:** 14. Harmonic Motion

15. Waves

**Unit 6: Electricity and Magnetism:** 17. Electricity and Circuits  
18. Electric and Magnetic Fields  
19. Electromagnetism

**Unit 7: Light and Optics:** 20. Light and Reflection  
21. Refraction and Lenses  
22. Electromagnetic Radiation

I wish you great success!



Ms. Marks