



Teacher: Mrs. Anjana Pandey

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Physics

“What we observe is not nature itself, but nature exposed to our method of questioning.”

- Werner Heisenberg -

Description:

In Physics, students explore the fundamental principles that govern the natural world through hands-on investigations, real-life applications, and conceptual analysis. Students engage in laboratory and field investigations for at least 40% of instructional time using safe, ethical, and environmentally responsible practices. The course emphasizes the development of scientific reasoning, data collection and analysis, and mathematical modeling to understand key concepts. Topics include motion, forces, energy, momentum, waves, electricity, and magnetism. Through individual tasks, group work, and project-based learning, students learn to apply physics principles to solve both academic and real-world problems. Critical thinking and problem-solving are at the core of this course, preparing students for future STEM opportunities.

Supplies:

*1 Composition Book Journal (100 page) (Can be a regular notebook), pencils
and Binder.*

Course outline:

Grading period 1

Unit 1: Kinematics

Unit 2: Projectile Motion and Two-Dimensional Motion

Grading Period 2

Unit 3: Newton's Laws of Motion (Dynamics)

Unit 4: Circular and Rotational Motion

Unit 5: Work, Power, Energy, and Thermodynamics

Grading Period 3

Unit 6: Momentum and Impulse

Unit 7: Electrostatics

Unit 8: Electric Circuits

Grading Period 4

Unit 9: Electromagnetism

Unit 10: Waves and Optics

Unit 11: Quantum, Atomic, and Nuclear Physics

Grading Policy:

Tests and unit projects are worth 50%; labs, daily work and quizzes are 50%.

Tests – Tests will include all material covered in class, reading assignments, supplemental handouts, labs, and homework problems.

Quizzes – Quizzes will be given periodically throughout a unit.

Homework or short problem sets assigned to you to help you apply the concepts and skills learned within the day and self-assess whether you have thoroughly learned the material. You

are expected to answer the assigned work or study each night to prepare for the next Physics period.

Make-Up Work – Make-up work will be given when students return to class.

Redo/Retest Opportunities – Only ONE retest per grading period is permitted. Students will be allowed to redo any other assignments for a grade up to 70. All redo/retakes must be done within the current grading period.

Late assignments are not eligible for redo opportunities.

Attendance and punctuality are necessary for success in this course. If you are absent, missed assignments and tests must be completed within five school days after returning to school. Absent students must email or see the teacher to schedule the make-up work immediately after returning to school. Please refer to the student code of conduct for a list of consequences related to unexcused absences and tardiness. A zero grade will be given for any missed test or assignment that the student failed to complete within the make-up window.

Classroom Policies Includes –For your personal safety, no food or drink is permitted in the Physics laboratory area during laboratory activities involving chemicals and hazardous materials. Water bottles are allowed in the classroom area; snacks must be discarded or kept in the student's locker before working in the laboratory. A zero-tolerance policy will be enforced regarding this expectation for everyone's safety.

Electronics Policy:

As part of our classroom culture, technology is integrated into the classroom on a regular basis. It is crucial that students show maturity and can handle this appropriately. Students who are unable to do so will be addressed on an individual basis.

Telephone calls or text messages are not allowed during class time except in the event of a health-related emergency. Students are responsible for contacting parents regarding pick-up reminders, etc. before leaving home.

All work is expected to be legible. Any student who does not turn in a neat assignment will lose points or must type/word process it to receive a grade. All reports that are turned in electronically must be submitted on the given due date to receive full credit.

Tutoring/Extra Help

Prevention is always better than a cure. Make sure that you practice with the given problem sets until you are confident that you can solve any type of problem on the topic. Your success in the class is only limited by your willingness and commitment to learning.

If you missed class for any reason and/or are having difficulties with the class, arrange your schedule to attend an in-school tutoring. Tutoring is available after school on Mondays and Wednesdays. Tutorial signup sheets are posted in the classroom.

Summary

Both student and parent/legal guardian should sign this statement to indicate your understanding and agreement:

_____ Date _____

Student Signature

_____ Date _____

Parent's/Guardian's Name (Print)

Parent/Guardians – Please indicate your best contact information via phone and email.

- *Phone:* _____
- *Email:* _____
- *Best method of contact:* _____