

Course Description

Physics is an on-level course which deals with the interactions of physical objects as well as the concept of energy. The development of higher order thinking skills is encouraged in the course as it is throughout Hillgrove's science program. It is also stressed that science is an experiential subject and must be experienced firsthand to truly be understood. With this in mind most of the class time is spent with hands on activities as well as minds on discussions based on student experiences and assigned homework. Individual exploration and organization is encouraged within the framework of small groups. Each Unit provides each student with materials and opportunities designed to help the student understand the concepts as well as appreciate the application of the content in her/his life outside of the science classroom. This classroom is intended to be a place where the student can safely think about and explore the world we live in. Every student's opinion is respected, with the understanding that science is a subject with little room for opinion that cannot be supported by observation, experimentation, and mathematical calculation. All of this requires individual student accountability and open communication in regards to his/her behavior, work, and grades.

Knowing what, how, and when to do in this course is clearly laid out in these pages. You are not expected to memorize all of this, but rather, to refer to this information when you have questions about what is expected. Please read through all of this information during the first week. Later in the course, before you ask your teacher, look for the answer here first.

Daily materials you need to bring with you on a daily basis:

pencil	calculator	notebook paper	3-ring binder (1" +)
--------	------------	----------------	----------------------

The following is the recommended notebook organization for this course:

- (1) this Syllabus
- (2) all materials for each Chunk should be kept in order starting with the guide/review sheet followed by key terms, worksheets, etc.

Textbook: **Physics: Principles and Problems. Glencoe. 2009.**

Teacher Contact and Availability

Hillgrove Physics Team

Mr. Buckert -
Matthew.Buckert@cobbk12.org
Room 1221
M-F: 3:30-4:00pm

Mrs. Bolton – Myra.Bolton@cobbk12.org
Room 1209
Th:7:45; W:3:30-4:00pm

Mr. Dine – John.Dine@cobbk12.org
Room 1219
TTh: 7:45am; W: 3:30-4:00pm

Mr. Teters - Michael.Teters@cobbk12.org
Student after hours –
theteterszone@gmail.com
Room 1215
MWThF: 7:45am and 3:35-4:00pm

Mrs. Steed - Leigh.Steed@cobbk12.org

Teacher websites/blogs can be found at:
<http://www.cobbk12.org/hillgrove/departments/science/science.aspx>

The following are the **Standard Units** of study in Physics broken down into Chunks (#)

<u>TOPIC</u>	<u>STANDARD</u>		<u>TOPIC</u>	<u>STANDARD</u>
Analyzing Motion	SP 1		Analyzing Electricity & Magnetism	SP 5
Speed & velocity (1)	a, b, c		Electrostatics (8)	a
Acceleration & Gravity (2)	a, b, c		Current & Circuits (9)	a, b, c,
Vectors & Projectiles (3)	b, c, f		Magnetism & Motors (10)	a, d
Newton's Laws (4)	d, h			
Application of Newton's Laws (5)	d, e, f, g, h			
Evaluating Energy	SP 2	SP 3	Exploring Waves	SP 4
Momentum (6)		c, d, e	Wave Properties (11)	b, c, d
Mechanical Energy (7)		a, b, g	Sound (12)	b, c, d
Thermal Energy/nuclear (15)*	a, b	a, f	Light (13)	a, b, c
			Optics (14)	b, e

Each content "Chunk" will follow the same 5 day pattern:

Day 1: Introduction

- Return and review the previous chunk's summative assessment.
- Receive the Objectives/Review Sheet for the chunk.
- Introduction to the new chunk of material to be covered. This may be teacher lecture, demonstrations, a short inquiry activity, etc.

Day 2 and 3: Lab/activity based instruction

- These days will allow for one big content based lab or multiple content focused activities to be performed along with instruction based on your results and observations.
- All of your work from the labs and activities will be due before the 20Q on Day 5.

Day 4: Final content instruction

- Focused according to the overall progress/needs of the class during the first three days of the chunk.
- Formative Assessment (12Q) - consists of 12 questions which are representative of the concepts covered and to be assessed on the Summative Assessment (20Q) on Day 5. Graded in class. The key will also be available on the course website for reference.
- Homework - complete the Chunk review sheet and other online review materials, if you have not done so already.

Day 5: Remediation and assessment

- Remediation/enrichment - you will be assigned either remediation or extension, individually based on your performance on the 12Q. This work and the review sheet will be turned in prior to the Summative Assessment (20Q)
- Summative Assessment (20Q) - it's basically a test.
- Begin working on the next topics...mainly the Key Terms online quiz at schoology.com which is due the next day.

Chunks #1-7, 9, 10 are actually 6 days, there will be an extra day 1, 2, or 3

On-level Physics Grading Guidelines

All grades for the course will be organized as follows:

- **Formative - 50%**
(Labs, key terms, daily)
- **Summative– 40%**
(Tests)
- **Final Exam – 10%**

The following are the typical assignments that occur each chunk. Others may be used within these categories as well.

Key Terms (5%)

- This is an online assignment at schoology.com. A link to the terms at the course website and schoology.com. Students will create a schoology account at the start of the semester.
- Assigned every Chunk Day 5; must be completed by the start of class on Chunk Day 1 for full credit. You may receive 80% credit through Day 3 of the chunk. A zero will be recorded in the gradebook after Day 3. There will be no opportunity to make these up after Day 3.
- Print out (or hand copy) the key terms and place in your notebook, then use the print out and take the quiz. Retake as many times as you wish before the end of Day 3 when the quiz expires.

Labs (25%)

- Minimum grade is 40% if student participated but nothing turned in, no less than 60% if student participated and turned something in.
- If absent, a lab must be made up on own time before the end of the following chunk, otherwise a zero will be assigned.
- Some labs can be made up online, but we recommend you come in and actually experience the lab.

Daily (20%)

- Various class/home activities and summarizers throughout the chunk.
- Online assignments at schoology.com

Summative Assessment (tests) - (40%)

- 20 question quiz for each chunk, taken after the remediation on Chunk Day 5.
- You will be given an opportunity to explain questions that you miss for partial credit (up to 40% of what you missed). This is called the 20Q analysis and must be turned in by Day 4 of the following Chunk.
- If you are absent, a zero will be recorded in the gradebook until it is made up. You should make every effort to take the 20Q by end of the following Chunk; make up times are before or after school only, please communicate with your teacher get this done.

The Final Exam (10%)

- Multiple choice (1 pt each) + 1-2 drill/performance; approximately 80 questions.
- Detailed cumulative of entire semester.
- You should keep all Objective/Review sheets Formative assessments, summative assessments, and materials from each chunk to help you prepare for the final. You will also be provided access to an additional Final Exam Review Sheet

Absences/Make-up work

- You are responsible for completing all work missed when you are absent. All materials are available at theteterszone.net and on your Schoology account. Speak with your teacher for specific expectations regarding make-up deadlines.

The Steeters Zone Behavioral Expectations

Each person is expected to follow the rules of Hillgrove as provided in your Student Handbook.

Thank you for showing common courtesy to others and their belongings. Respect for the opinions and beliefs expressed in the Zone is greatly appreciated.

Respectful conduct/language in the Zone is welcome and expected.

Feel free to wear your hats outside the building at any time.

Thank you for doing "your part" to help keep the Zone clean each day.

"If it's not yours....don't touch it." – *All I Needed To Know I Learned In Kindergarten*

Let's be safe at all times and use our good sense.

Drinking water is encouraged in the Zone, stay hydrated and healthy! Other food and drinks should not be consumed here as they tend to attract pests.

Be aware of your surroundings as you walk around and keep your hands to yourself.

Being prepared to begin when the bell rings is very important.

Now that you have the expected materials list you will be able to bring those with you to class each day.

Please sign in each day when you arrive in the Zone.

Read the board/screen and be ready to start right after the tardy bell rings.

Each person will put forth her/his best effort to learn as much as she/he desires.

Feel free to ask to go to the bathroom when appropriate and truly necessary, and try not to be gone more than 5 minutes...we miss you when you are not here. Also there is a limit of 15...that's plenty, plan accordingly.

The first 15 and last 15 minutes of all classes is considered "dead time"...stay here at those times.

Any student cell phone, smart phone, iPod, iPad, computer, tablet, or any other type device is only to be used as part of the actual classroom instruction and/or research as permitted by Mr. Teters or Mrs. Steed. Any other use of these devices during class time is simply an unnecessary distraction.

You are expected to put any devices away when asked or you may be given an administrative referral for insubordination.

Negative Consequences (BOOOO!)

Unfortunately there are instances where you may find it difficult to exhibit the above behaviors consistently. If that is the case you may be asked to serve a detention for us. We will only discuss the *appropriate* behavior at the time a detention is assigned. You must see Mr. Teters or Mrs. Steed after class if you wish to respectfully discuss the reason for the detention.

Each detention will last at about 20 minutes and will consist of an absolute waste of your time.

Detentions must be served within the following week during posted office hours.

Failure to serve in 1 week will result in 20 minutes extra wasted time and your parents will be contacted.

Parents will also be contacted if you are assigned a second detention.

Three detentions, or two missed detentions, will result in an administrative referral.

Major violations, as listed in the student handbook, will be handled on an individual basis.

Tips for success

- Be aware of all expectations in this course, we do not spend time reminding you about details of which you have been adequately informed.
- Complete, and turn in, all assignments on time neatly and with the quality expected from a student of your experience. There is no need to state the question and the answer. Just always answer in *complete thoughts* that allow the reader/listener to understand what the question is without having seen/heard the question. Also try to avoid using too many pronouns, especially when multiple people and objects are involved.
- Review your notes/textbook/study beyond the homework assigned daily for 10-15 quiet minutes (*no TV, video games, music, social networking, etc.*).
- You are responsible for making up any work due to an absence...and yes, you missed something important that might need to be made up or was turned in while you were gone...so find out what it was and get it done.
- You should know "about" what your grade is at any time. We will keep a very good record of your grades, but we might make mistakes from time to time. You should also keep a very good record of your grades. You and your parents should make sure you have access to the Student/Parent Vue online.

Pay attention and allow others to pay attention during class... and when in doubt.....ASK!