

Physics Syllabus

Ms. Melgaard

2013-2014

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Course Description: Physics is the study of the physical laws and principles that govern our universe. Matter and energy are studied in mechanical systems, in relation to waves, and in electrical systems. Motion, forces, gravitation, work, energy, sound, light, and electrical currents are some of the topics studied through laboratory investigations, lecture, and problem-solving activities. Students will use traditional instruments to gather data in laboratory investigations and will also use computers for both data collection and analysis of data. Scientific calculators will be required.

Topics: This course is based on the MN Science Standards, which can be found here:

<http://education.state.mn.us/MDE/EdExc/StanCurri/K-12AcademicStandards/>

Semester 1:

Intro to Physics (ch 1)
Motion (ch 2-3)
Force (ch 4-5)
Motion in 2D & Gravitation (ch 6-7)
Momentum & Energy (ch 9-11)
Thermal Energy (ch 12)
Physicist Project

Semester 2:

Vibrations & Waves (ch 14-15)
Light and EM spectrum (ch 16)
Reflection & Refraction (ch 17-19)
Static Electricity (ch 20-21)
Current Electricity (ch 22-23)
Magnets (ch 24-26)
Modern Physics (ch 27-30)

Resource/Textbook: Glencoe's *Physics: Principles and Problems*. Textbooks will not be automatically handed out to each student. However, you may always check out a textbook with the teacher.

Class Website: www.sciencewithmelgaard.weebly.com has relevant information for Biology and a link to the teacher's Planbook page. In Planbook you can view the lessons and homework for the current week. You will also be able to download and print off any assignments handed out that week. If you miss class, check Planbook for missed assignments, due dates, handout downloads, makeup work, etc. Please check the website often.

Grading:

Grading scale:

92-100	A	72-77.99	C
90-91.99	A-	70-71.99	C-
88-89.99	B+	68-69.99	D+
82-87.99	B	62-67.99	D
80-81.99	B-	57-61.99	D-
78-79.99	C+	0-56.99	F

All grading is based on the following:

Tests and quizzes	40%
Daily work	45%
Participation points	15%

Daily work includes assignments, homework, labs, and projects. 4 participation points will be given each day and will be lost for not being prepared for class or not participating during class. Participation points will be updated into the gradebook weekly.

Online grades: Grades are available online. Visit the school website at www.newfolden.k12.mn.us and click on StudentVUE and log in to check your progress.

Late work: Assignments turned in late the same day they are due will be given *half credit*. Assignments turned in the following day or later will only be given *1 point*. All assignments **must** be turned in to receive credit for the class. If there is any missing work students will receive an incomplete. Students have one week after each grading period, unless other arrangements have been made by the students with the instructor and administration, to get work in. After that time, incompletes turn to a "F" for that grading period. Students may drop their lowest 2 assignment grades (tests, quizzes, large projects, and other assignments selected by the teacher may not be dropped).

Daily required materials:

- Pen or sharpened pencil
- Scientific Calculator
- Notebook. This notebook will be handed in routinely to be graded, so make sure one notebook is designated as a Biology notebook and brought to class every day.
- Participation points will be lost if students aren't ready for class.

Expectations:

You can expect that I will provide varied opportunities for learning. I will be respectful and aware of and responsive to your learning progress. I will welcome questions and quickly respond to them regardless of method: in person, by phone or by email.

I expect students to show up prepared and ready for class. I expect students to be respectful in their participation in class, both to the teacher and other students. I expect students to work on science work while in class, and if it doesn't get completed, to finish it outside of class. I expect students to be aware of safety concerns in the laboratory and always practice safe procedures.