Public Academy for Performing Arts
Class Syllabus
Physics

Teacher Information

Teacher: Mr. Ramirez
Room #7
Email: cramirez@paparts.org
Teacher website: http://edmodo.com
Phone: 505-830-3128 ext 24610
Office hours: My prep is HS 5th period and I am always welcoming of students during lunch or after school (usually past 8th period).

Course Description

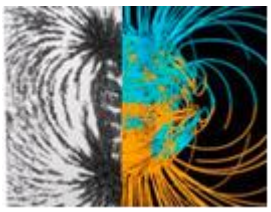
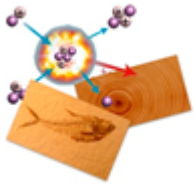
In this class, we will explore the laws of physics and how to interact with them in the world around us. We will incorporate labs, group work, research projects, and various other methods of discovery to learn the tools of science, methods of scientists, and gain better perspectives on physics and physical laws. The sciences are a very difficult field. Please understand that although the class material may be hard to grasp at times, I will do my best to help you achieve in this class. The best students attend every class, participate in class, turn in assignments on time, and most importantly, are self-advocates.

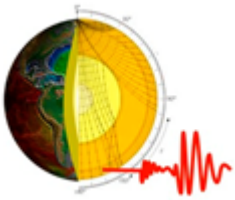
Remind App/Edmodo

This year I will be utilizing a phone app called Remind. This will be used to communicate with students about due dates, tests, quizzes, announcements, etc. I am also posting all homework, course curriculums, syllabus's, notes, and references to my edmodo webpage. The code will be given in class.

Skills and Major Topics Covered

This class will begin with scientific methods, safety, and equipment necessary for scientists. We will then follow a progression from simple force actions all the way to nuclear energy and space systems

	**1** Forces and Motion	Students make predictions using Newton's Laws. Students mathematically describe how changes in motion relate to forces. They investigate collisions in Earth's crust and in an engineering challenge.
	**2** Forces at a Distance	Students investigate gravitational and electromagnetic forces and describe them mathematically. They predict the motion of orbiting objects in the solar system. They link the macroscopic properties of materials to microscopic electromagnetic attractions.
	**3** Energy Conversion	Students track energy transfer and conversion through different stages of power plants. They evaluate different power plant technologies. They investigate electromagnetism to create models of how generators work and obtain and communicate information about how solar photovoltaic systems operate. They design and test their own energy conversion devices.
	**4** Nuclear Processes	Students develop a model of the internal structure of atoms and then extend it to include the processes of fission, fusion, and radioactive decay. They apply this model to

		understanding nuclear power and radiometric dating. They use evidence from rock ages to reconstruct the history of the Earth and processes that shape its surface.
	**5** Waves and Electro-magnetic Radiation	Students make mathematical models of waves and apply them to seismic waves traveling through the Earth. They obtain and communicate information about other interactions between waves and matter with a particular focus on electromagnetic waves. They obtain, evaluate, and communicate information about health hazards associated with electromagnetic waves. They use models of wave behavior to explain information transfer using waves and the wave-particle duality.
	**6** Stars and the Origin of the Universe	Students apply their model of nuclear fusion to trace the flow of energy from the Sun's core to Earth. They use evidence from the spectra of stars and galaxies to determine the composition of stars and construct an explanation of the origin of the Universe.

Textbooks

There are unfortunately only enough textbooks for a class set, and some to be checked out overnight. I do expect every student to take care of all textbooks to prolong their life for PAPA.

Materials Necessary

Every student will be expected to have a notebook/ binder for class notes and bell ringers. Students are expected to have a pen/pencil every day and will be forced to put down collateral if they need to borrow one from me. All other materials needed will be announced at a future date when necessary.

Late Work/ Make-up Work

All late work/make-up assignments will be accepted for full credit at a reasonable timeframe for excused absences only. Late work turned in without an excused absence will be accepted up to 1 week late. However, each day of lateness will be penalized by 15% of the full grade.

Grading

Grading will consist of a total point system, in which all grades, unless otherwise stated, will be of an equal weighting. Semester grades will consist of 40% period 1, 40% period 2, and 20% final exam.
The grading scale will go as follows.

Letter Grade	Percentage Points
A+	100 – 97
A	96.9 – 93
A-	92.9 – 90
B+	89.9 – 87
B	86.9 – 83
B-	82.9 – 80
C+	79.9 – 77
C	76.9 – 73
C-	72.9 – 70
D+	69.9 – 67
D	66.9 – 63
D-	62.9 – 60
F	Below 60

Extra Credit

Extra credit is a privilege not a right. I will offer extra credit at my own discretion. If you whine too much for extra credit, I will not want to offer any. However, I do have a heart and will reward extra effort when pertinent.

Class Expectations

Students are expected to follow a set of procedures to ensure that everyone has a fair and enjoyable experience in this class. Likewise, I have a set of rules for myself that I believe will promote respect and learning from both sides of the classroom.

For Students

1) Be respectful of your peers your teachers, and all faculty in the school.
2) Be fully prepared to learn every day in class. This includes having a good mindset in addition to having all necessary supplies and work ready.
3) Participate. It is necessary for scientists, and students, to be able to work together and collaborate.

For Myself

1) I swill in turn show respect to all of my students.
2) I will come to each class prepared to teach and have everything ready for you.
3) I will do my best to foster an environment that promotes rigor and safe collaboration.

Food and Drink Policy

Students may not eat in my class unless they have received prior permission from myself (not very likely). You may finish your snacks before entering my class or place them on the side ledge by the entrance until you leave. Students may drink water freely. Anything else must be in a spill resistant container (soda with a cap or bottle that snaps/locks shut)

Trash Throwing

Please don't do it. You will pick up trash and/or come in to vacuum later.