

## INFO SHEET FOR HONORS PHYSICS

**Room:** 318

**Teacher:** L. Henry

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

**Course Description:**

The goal of Honors Physics is to provide students with the scientific principles, concepts and methodologies required to better understand the physical world. This course will cover all basic mechanics, wave and electricity needed to be successful in a college Physics class. Physics is required by most science majors and also relates to everyday life. This course will be challenging and fun!

**Big Ideas:**

This course will cover 6 big ideas..

1. Objects and systems have properties such as mass and charge. Systems may have internal structure.
2. Fields existing in space can be used to explain interactions
3. The interactions of an object with other objects can be described by forces.
4. Interactions between systems can result in changes in those systems.
5. Changes that occur as a result of interactions are constrained by conservation laws.
6. Waves can transfer energy and momentum from one location to another without permanent transfer of mass serve as a mathematical model for the description of other phenomena.

**Class Days**

Students will spend 75% of their time in the classroom participating in lecture, practice and assessment. Students are expected to arrive to class prepared and on time. Students are expected to do work outside of class, and are expected to have all homework completed when they enter class. No late homework will be accepted.

**Lab Days**

Students will spend one class period out of every four participating in college level physics labs. During these labs all seven of the science practices and most fundamental physics concepts will be addressed. Students will also be required to complete a minimum of seven inquiry labs that will require that the student writes the procedure as well as collecting data and completing any relevant calculations and conclusions. Labs will be assessed by a lab report, or quiz. Lab concepts will also be addressed on the unit assessment. Students will be required to keep a lab notebook that may be checked at any time during the year. This notebook will hold all labs completed throughout the year. Students must include predictions, procedures, data, data analysis and conclusions for each lab.

**I. General Notes**

1. All of my science students will be required to maintain a notebook as well as a lab notebook.
2. At the first sign of misunderstanding concerning a topic, you need to plan to stay after for help.
3. This class will include a trip to Six Flags, but I reserve the right to determine whether a student has met requirements to attend the trip.