

# CONCEPTUAL PHYSICS

2006-2007

**Course Title:** Conceptual physics

**Teacher:** Hasty, Showell, Tamukong, Walsh

**Email:** See Gwynn Park High Webpage under Science

## I. COURSE DESCRIPTION

- **Aim :** Conceptual physics is designed to introduce 9<sup>th</sup> grade students to basic concepts of physical sciences. Focus is on Newtons' laws, principle of conservation of energy, waves, and the atom and their applications in real life situations.
- **Topics covered:**
  - Chapter One: Physics in Action *Newton's Law -----1<sup>st</sup> quarter*
  - Chapter Three: The Track and Field Championship (Sports 1) *Newton's Laws-----2<sup>nd</sup> quarter*
  - Chapter Four: Thrills and Chills *Conservation of Energy ---3<sup>rd</sup> quarter*
  - Chapter Five: Let Us Entertain You (Communication 1) *Sound/Light ---3<sup>rd</sup>/4<sup>th</sup> quartersh*
  - Chapter Nine: Atoms on Display *Atomic Structure -----4<sup>th</sup> quarter*
- **Length :** One year
- **Prerequisites:** None

## II Instructional Philosophy

- Students attend the class every other day; they should come with materials needed for the course: textbook, logbook, calculator, and ruler. Students are expected to perform all class activities and show to apply knowledge gained in the course in doing end of quarter projects.
- Instruction will be through a variety of methods: reading, Q/A, hands-on activities, group work, etc.
- Assessment is by class work, homework/assignment, projects and end of quarter examinations.

## III Major Projects

- **Sportscast** in the first quarter
- **Track and field manual** in the second quarter
- **Roller Coaster** in the third quarter
- **Music Production and Model of the atomic structure**

## IV. Assessment Plan

- |                     |      |
|---------------------|------|
| • Classwork         | 20%  |
| • Homework          | 15%  |
| • Project           | 20 % |
| • Quizzes and tests | 20%  |
| • Quarterly Exam    | 25%  |

## V. Pacing Guide

This is basically the same as topics covered:

- Chapter One: Physics in Action *Newton's Law -----1<sup>st</sup> quarter*
- Chapter Three: The Track and Field Championship (Sports 1) *Newton's Laws-----2<sup>nd</sup> quarter*
- Chapter Four: Thrills and Chills *Conservation of Energy ---3<sup>rd</sup> quarter*
- Chapter Five: Let Us Entertain You (Communication 1) *Sound/Light ---3<sup>rd</sup>/4<sup>th</sup> quartersh*
- Chapter Nine: Atoms on Display *Atomic Structure -----4<sup>th</sup> quarter*

**VI. Textbook**

Eisenkraft, A .(2005). *Active Physics: An enquiry approach*. Armonk, NY: It's About Time

**VII. Materials:**

Students come to class every day with:

- Textbook
- Notebook
- Pens, pencil, ruler, calculator

**XI Rules**

- **The Golden Rule: Be respectful to all i.e. Yourself, Your teacher and all classmates and visitors**
- **Be seated before the tardy bell rings**
- **Take permission (by raising your hand) before you speak or move**
- **Chewing gum, food/snacks and drinks are not allowed in class**
- **Profanity or vulgar language are not to be used in class. Use Standard English.**



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Carletta Marrow, Principal

Parent/Guardian Signature \_\_\_\_\_

Student Signature \_\_\_\_\_