

**PHYSICS 30S
COURSE OUTLINE
(2018-2019)**

Welcome to Physics 30S! Please read this outline carefully, sign it and hand it back to the teacher.

Course Description: In general, physics is, in part, a way of thinking that has rules for judging the validity of answers applicable to everyday life. It can be portrayed as intense human activity, full of trial and error, that is influenced by cultural priorities and humanistic perspectives. Students are encouraged to make distinctions between what is observable and testable, as well as the abstract deductions, models, and themes that derive from evolving scientific research and thinking. It seeks to foster a sense of wonder, enthusiasm, and interest in science so that young people feel confident and competent to engage with everyday scientific and technological applications and solutions. As students study a range of topics through various sub-disciplines of physics, they will acquire a broad, general understanding of the important ideas and explanatory frameworks of the field as a whole, including the procedures of scientific inquiry that have had a major impact on our material environment and on our culture.

Goals for Students:

- encourage students at all levels to develop a rational sense of wonder and curiosity about scientific and technological endeavors;
- enable students to use science and technology to acquire new knowledge and solve problems, so they may improve the quality of their own lives and the lives of others;
- prepare students to critically address science-related societal, economic, ethical, and environmental issues;
- provide students with a proficiency in science that creates opportunities for them to pursue progressively higher levels of advanced study, preparing them for science-related occupations, and engaging them in science-related activities appropriate to their interests and abilities; and
- develop in students of varying aptitudes and interests a knowledge of the wide variety of careers related to science, technology, and support for the natural and human environments.

To help you obtain the skills and accomplish these goals mentioned, this course has been broken down into the following four units (proposed timeline included):

• Unit 1: Waves (Sept.)	• Unit 3: Mechanics (Nov.)
• Unit 2: The Nature of Light (Oct.)	• Unit 4: Fields (Dec.-Jan.)

Students may be asked to bring materials from home for projects and activities.

Mark Breakdown:

Course Work	70%
Final Assessment	30%

