

# Henry Street High School

## SPH 4C1

Physics, College Preparation

### COURSE OUTLINE

#### COURSE DESCRIPTION

*This course enables students to deepen their understanding of the concepts and theories of physics. Students will explore these concepts with respect to motion; mechanical, electrical and electromagnetic energy transformations; hydraulic and pneumatic systems and the operation of commonly used tools and machines. Throughout the course, students will develop their skills in the processes of scientific investigation and explore careers related to physics..*

#### UNITS OF STUDY

**UNIT 1** – Motion and Its Applications

**UNIT 2** – Mechanical Systems

**UNIT 3** – Electricity and Magnetism

**UNIT 4** – Energy Transformations

**UNIT 5** – Hydraulic and Pneumatic Systems

**UNIT 6** – Scientific Investigation Skills and Career Exploration

#### ASSESSMENT AND EVALUATION

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Each unit may include the following strategies:

- ❖ Quizzes
- ❖ Lab Activities
- ❖ Assignments
- ❖ Computer Activities
- ❖ Tests/Unit Tests

#### SUMMATIVE EVALUATIONS

Summative evaluations will include marks from at least one of the following categories:

Knowledge	35%
Thinking/Investigation	35%
Application	15%
Communication	15%

#### FINAL EVALUATION

Term Work	70%
Final Summative Evaluation	30%

#### OTHER INFORMATION

**TEXTBOOK** - Nelson College Physics 12 - \$80 replacement cost

**EQUIPMENT**: Binder, calculator, pen, pencil, ruler, paper, graph paper