

# Physics 11

Ms. Della  
Room 215

tdella@sd43.bc.ca  
<http://riversidedella.wikispaces.com>

## Topics Covered:

### INTRODUCTION

- We will begin our course by setting up the necessary skills to be successful in the rest of the course. These skills include:
  - Significant figures and scientific notation
  - Unit conversions
  - Graphing techniques and interpretations

### KINEMATICS

- This unit will take a closer look at objects in motion in one dimension
- We will be revisiting familiar concepts from Science 10 such as distance, displacement, velocity and acceleration

### DYNAMICS

- This unit will explore the nature of various forces such as gravity and friction
- We will be applying an understanding of Newton's laws to describe the effects of forces on objects
- We will also be learning about momentum and the role it plays in various collisions and explosions

### ENERGY

- In this unit we will develop an understanding of the three main forms of energy and perform calculations involving the Law of Conservation of Energy

### MODERN PHYSICS

- In this unit we will be introduced to and gain further understanding of the fundamental principles of special relativity
- We will also revisit and delve deeper into nuclear processes such as nuclear fission and nuclear fusion that were explored previously in Science 10

### WAVES

- Here, we will explore the reflection and refraction of light and its wave nature

### MATERIALS NEEDED

Personal device  
Notebook/ duotang  
Pencil, pen, eraser, ruler  
Scientific calculator

## Course Textbook:

We will be using 'BC Science Physics 11' for this course. Students are strongly encouraged to purchase their own copy (on student fee statement), so they can write directly in the workbook and keep it at the end of the course. This is optional, however, if not purchased, it is expected that students return the workbook at the end of the course, **undamaged and not written in**.

## Digital Handouts:

Whenever possible, both digital and paper copies of handouts will be made available. Digital copies of handouts will be provided on my website <http://riversidedella.wikispaces.com>.

Please turn over for more information and to sign ...

## Course Assessment:

Both your **work habits** (commented on in report card comments) and **content knowledge** (letter grade) will be assessed throughout the semester.

You will have opportunities to demonstrate your content knowledge through assignments, labs, in-class work, discussions, quizzes, unit tests and projects. Below is a breakdown of marks:

**Assignments, Labs, and Projects – 20%**

**Unit Exams, and Tests – 60%**

**Final Exam – 20%**

All assignments, labs and projects must be handed in on time. **Once an assignment has been marked and returned it will no longer be accepted unless it is completed in front of me at lunch or after school.**

If you are absent for a quiz or test please ensure that a parent/guardian calls into the school to excuse you. Furthermore, it is your responsibility to arrange a time to write it with me.

Marks will be regularly posted on the class webpage in a PDF file by student number (see GoCard.)

## Classroom Expectations:

- Our classroom is a **community** collectively working towards the goal of **learning**.
- Your overall attitude and behavior can have both positive and negative impacts on, not only your own learning, but those around you.
- My wish is that we can work together to provide the most positive, safe, encouraging and engaging learning environment possible.

## Suggestions for Success:

- Participate in class: come on time, prepared to learn, with all necessary materials; *ask questions* and **get involved** in the lessons
- Stay up to date on assignments – if you start to fall behind or are having trouble understanding a concept, **seek help** as soon as possible
- If you are absent, it is YOUR RESPONSIBILITY to get caught up with notes and assignments you may have missed
- Stay organized
  - Complete all notes/assignments and keep in designated sections in your binder or electronic device;
  - you will need your notes/assignments to study for unit tests and the final exam
- Be open to learning with new people in new ways

***Your success in this course depends on you.***

***Take responsibility and be an advocate for your learning***

.....  
Tear off and return

## Parents/Guardians:

Thank you for taking the time to read through the course outline with your child. Your support at home is important in your child's success. Please feel free to contact me at any time with any questions/concerns (tdella@sd43.bc.ca).

If there is anything you would like to share that would better allow me to support your child, please attach a written comment or email your comments to me directly.

Parent/Guardian Signature: \_\_\_\_\_ Student Signature: \_\_\_\_\_

Email Address(es): \_\_\_\_\_