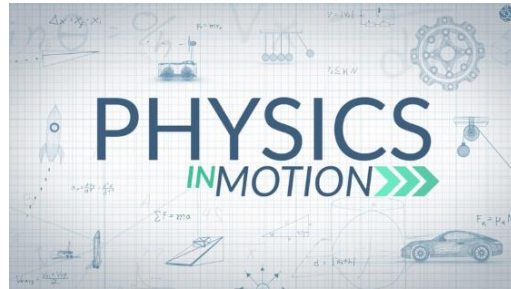


# SCIENCE 20F



**WORK PACKAGE 12**

**TUESDAY JUNE 2<sup>ND</sup>**

## Unit 4 - Physics

Last work package you may have completed lesson package 4,5 and completed the second assignment – **Physics Assignment 2** for marks and sent it back to me at the school. Today we continue with the last set of lessons in the Physics Unit and the next assignment to be handed in, **Physics Assignment 3**. Assignment 3 is kind of a cumulative assignment as it covers materials from this week's lessons and most of this short unit as well.

Today we continue with the condensed version of the Physics unit. **Lessons 6,7,8,9 Package** are the lessons to focus on today and this week. Remember to use and consult your **Physics References – Terms and Equations** document to help you understand the lessons and complete the assignments.

### This week's Assignments

<u>Lesson #</u>	<u>Possible dates for completion</u>
<u>Physics Lessons 6,7,8,9 Package</u>	June 10th
<u>Physics Assignment 3</u>	June 10th

## This week's instructions

Read through the lessons and complete the work that follows each lesson in the notes. Further explanations below:

**Physics Lessons 6,7,8,9 Package** includes 4 individual lessons:

- Lesson 6: **Aristotle, Galileo and Sir Isaac Newton on Motion Ideas**

**Notes**: Read the notes and familiarize yourself with the ideas of the great minds of physics that helped us understand the laws of physics.

**Work**: (Learning activity 3.7 Student investigation) It is an optional experiment. If you have the material and want to try it out, go for it. If not, its ok, you can also look up videos on YouTube of this demonstration, there will likely be lots.

**Work**: (Learning activity 3.8 Theories of Motion) Compare the theories of the scientists as they tried to understand and explain the laws of motion.

- Lesson 7: **The Link Between Force and Motion**

**Notes**: Read the notes about Newton's First Law of Motion and Newton's Second Law of Motion. Try to make connections between the notes and what you already know about motion.

**Work**: (Learning activity 3.9 Forces in Action) Use you current understanding to answer the questions.

- Lesson 8: **Effects of Inertia on Car Collisions.**

***(Optional) Notes***: Read the notes about the force of *Inertia*.

You are not "required" to understand this lesson; it is more for interest than pertinent to your learning for this unit. The **work** in this lesson is also optional and can be done only if you have nothing better to do 😊.

- Lesson 9: **Newton's Third Law**

**Notes**: Read the notes about Newton's Third Law of Motion. This lesson explains the "forces" required to have motion. Try to understand these principles of motion and how they relate to everyday movements and the ability to do "work"!

**Work**: (Learning activity 3.11 Action and Reaction Forces) Answer the following questions on loose leaf paper. Use pictures and arrows to show the direction of forces.

Remember to consult with your References Document I gave you: "**Physics References – Terms and Equations**". This document will help you complete the assignments. It was included in the second physics work package!

**Physics Assignment 3**: This assignment is for marks and is very similar to the "work" you completed in the lessons. The questions are primarily on Velocity, Acceleration, and Newton's Laws. It also includes some work from the previous lessons this unit as a way of concluding this unit. Use the notes and your previous work to complete this assignment. Once it is completed, please remember to send it back to school. Please put your name at the top! It is out of 30 points!

**As you continue to work through these work packages, keep in mind that only assignments need to be turned in, not full lessons of notes. You can keep your notes and Work Package instructions at home!**

**I do not need to see the Physics work you completed in the “lessons – 6,7,8,9”. I only want you to turn in the assignments for marks such as Assignment 3! (30 marks). Thank You.**

Physics Assignment 3: needs to be completed and handed back in, to me when you can.

**Please remember to put your name on your assignments, first and last name!**

If you have any questions or concerns, please don't hesitate to contact me:

At school – Phone: (204) 367-2296

At Home – Phone: (431) 808-0816

Email: **M. Puranen** at [kpuranen@sunrisesd.ca](mailto:kpuranen@sunrisesd.ca)