**Forces & Motion Chapter 11A, 12.1**



**See** [**https://www.learningctronline.com/courses**](https://www.learningctronline.com/courses) **for Materials and Resources.**

**Topics:**

1. Forces and Motion

**Objectives:**

1. Describe how motion is produced (Forces).
2. Explain what is meant by relative motion and factors involved.
3. Distinguish between distance and displacement.
4. Define vector quantities versus scalar quantities and add/subtract them.
5. Distinguish between speed and velocity and know how to calculate both.
6. Describe the three types of speed / velocity.

TAKE NOTE – expect to spend 6-8/week on Physical Science

1. Guided Reading Note-Taking Worksheet (Pearson Text)
2. Pearson Concepts in Action Worksheets
3. Vocabulary Crossword (11V Force & Motion)
4. Lab Speed (Formal Lab Report) … Procedures, Calculations and Data
5. Class Song: The Minute You Came to This Class
6. Week 17 Devotional (<https://www.learningctronline.com/devotional>)

**Text**: Chapter 11, 12.1: Forces & Motion pp. 326-337; 354-362

**Guided Reading Note-Taking Worksheet:**

Complete the worksheet for Chapter 11 and 12.1: Forces & Motion (11.1 – 11.2; 12.1).

**Class Notes: PowerPoint or PDF**

**Homework**:

* 12.1 Force & Motion Worksheet (Pearson Concepts in Action)
* 11.1 Distance & Displacement Worksheet (Pearson Concepts in Action)
* 11.2 Speed & Velocity Worksheet (Pearson Concepts in Action)
* Vocabulary Crossword (11V Force & Motion)
* Assignments will be “spot checked” during class or submitted via email.

**Lab**: Speed

* Perform the lab as directed using the worksheet provided.
* This week do the Procedures and Calculations and Data sections.
* You will submit a Formal Lab Report (following the guidelines in the Lab Report Format Document) within 16 days.
* Save the documents into your LAB folder in the Physical Science folder on your desktop.

**TEST:** The test will be given after next week’s lesson.

Supplemental Resources (Optional)

1. The Great Balloon Race Lab
2. Nature of Forces Activities
3. Speed / Velocity Problems
4. Vectors Lab Paper River

**<http://somup.com/cFXhD1n144> Relative Motion (0:32) Car in a snow storm**

[**http://somup.com/cFXhDQn14A**](http://somup.com/cFXhDQn14A) **Relative Motion (0:55) Boy on Train platform**

<http://somup.com/cFXhoMn14r> Relative Motion Bugs and Daffy (fun) (6:53)

[**https://screencast-o-matic.com/watch/cYhtbQpq0c**](https://screencast-o-matic.com/watch/cYhtbQpq0c) **What is a Vector? "Despicable Me" (0:39)**

<http://somup.com/cYhDY3jUAn> The Word Became Flesh John 1:14; Voice of Truth (5:06)