**General Physics**



**Student Learning Objectives**

***Unit 2: NEWTON LAWS (Chapter 5)***

For each of the following objectives rate yourself according to the following scale:

**4** I’m an **EXPERT**. I understand the topic well enough that I could teach it to a classmate.

**3** I’m a **PRACTITIONER**. I understand the topic fairly well but occasionally need some help.

**2** I’m an **APPRENTICE.** I have some understanding, but still need additional help.

**1**  I’m a **NOVICE**. I sort of know what the topic is about but need a lot of help.

*Your goal is to* ***reach or pass practitioner*** *level by the day of the test.*

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| **Book Section** | **Objectives** | **Instructional Sources** | **Self**  **Assessment** |
| **4.1 Changing Motion**  **pgs 119-124** | **Describe** how force affects the motion of an object. | PPT Notes, PP A |  |
| **Interpret** and **construct** free body diagrams | PPT Notes, PP A, Force Diagram Lab  SRQ: 1-5, CRQ: 5, 7, 10 |  |
| **4.2 Newton First Law**  **Pgs 125-134** | **Explain** the relationship between the motion of an object and the net external force acting on the object. | PPT Notes, Getting Pushy Lab, PP B |  |
| **Determine** the net external force on an object. | PPT Notes; SRQ: 1-5, CRQ: 16, 19, 21 |  |
| **Calculate** the force required to bring an object into equilibrium. | PPT Notes |  |
| **4.3 Newton Second & Third Laws**  **Pages 130-134** | **Describe** an objective’s acceleration in terms of its mass and net force acting on it. | PPT Notes, PP C, More PP C, Changing Mass-Constant Force Lab, Changing Force-Constant Mass Lab |  |
| **Predict** the directional and magnitude of acceleration caused by known net force. |
| **Identify** action reaction pairs | PPT Notes; SRQ: 1-5, CRQ: 23, 25, 32, 37 |  |
| **4.4 Everyday Forces Pages 135-143** | **Explain** the difference between mass and weight. | PPT Notes; |  |
| **Find** the direction and magnitude of normal force. | PPT Notes; Force Diagrams; |  |
| **Use** coefficients of friction to calculate frictional force. | PPT Notes; PP D & PP E; Friction Lab; Webquest Force & Motion; SRQ: 1-5, |  |

**TARGET TEST DATE IS OCTOBER 30TH**