

Name: _____

Period: _____ Date: _____

GIANCOLI READING ACTIVITY

Section(s) 2-4 to 2-6

1. Big Idea:
 - a. Interactions between systems can result in changes in those systems.
2. Enduring Understanding:
 - a. The acceleration of the center of mass of a system is related to the net force exerted on the system, where $\vec{a} = \frac{\Sigma \vec{F}}{m}$.
3. Essential Knowledge:
 - a. 4.A.1: The linear motion of a system can be described by the displacement, velocity, and acceleration of its center of mass.
 - b. 4.A.2: The acceleration is equal to the rate of change of velocity with time, and velocity is equal to the rate of change of position with time.
 - i. The acceleration of the center of mass of a system is directly proportional to the net force exerted on it by all objects interacting with the system and inversely proportional to the mass of the system.
 - ii. Force and acceleration are both vectors, with acceleration in the same direction as the net force.
4. Learning Objectives:
 - a. (4.A.2.1): The student is able to make predictions about the motion of a system based on the fact that acceleration is equal to the change in velocity per unit time, and velocity is equal to the change in position per unit time.
 - b. (4.A.2.3): The student is able to create mathematical models and analyze graphical relationships for acceleration, velocity, and position of the center of mass of a system and use them to calculate properties of the motion of the center of mass of a system.
5. Read section(s) 2-4 to 2-6 in your textbook.
6. Use the Cornell Notes system to take notes on the lesson material. You have the following options:
 - a. You can print multiple copies of the form on the next page of this document and handwrite your notes.
 - b. You can print multiple copies of the PDF form supplied on the webpage and handwrite your notes.
 - c. You can use the MS Word form supplied on the webpage and type your notes.
 - d. You can reproduce the Cornell Notes format on notebook paper and take notes on it.
7. As a minimum, you must include notes on the following topics:
 - a. Relationship between velocity and acceleration
 - b. Average acceleration

- c. Instantaneous acceleration
 - d. Uniformly accelerated motion
 - e. Problem solving process (*Use a separate Cornell Notes form to analyze each step*)
8. When using this form, remember the **Five R's of Notetaking**:
- a. **Record** – the most important or emphasized information
 - b. **Reduce** – and synthesize information wherever possible, making it as concise as you can
 - c. **Recite** – read your notes out loud
 - d. **Reflect** – and consider how this information is connected to your personal experiences and what you already know
 - e. **Review** – look over your notes more than once
9. Answers may be typed or neatly printed. Drawings may be freehand, but try to make use of the ‘Shapes’ or ‘Insert Clipart’ functions of MS Word.
- 10. A reading assignment may contain drawings that would be useful in your notes. If you have scanning capability, you should practice scanning pictures and inserting them into documents. As you prepare for college, you should consider investing in a desktop printer-scanner-copier. Just remember that for formal reports you have to cite any images that you insert into your document. You don't have to cite scanned images for this exercise unless you use a source other than the textbook.**
- 11. If this is submitted electronically, you must use the filename format, “LastnameFirstinitialPerXAssignmentname”.**

CORNELL NOTES and the 5 R's

Record – the most important or emphasized information

Reduce – and synthesize information wherever possible, making it as concise as you can

Recite – read your notes out loud

Reflect – and consider how this information is connected to your personal experiences and what you already know

Review – look over your notes more than once

Name:
Date:
Topic:

Questions/Key Points	Notes
SUMMARY:	

