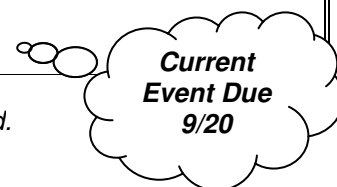


Unit 2 Plan: **Representing Motion**  
 Physics1 Honors @ PalmHarborUniversityHigh



Day	Date	Topic	Assignments Due / Schedule
1		Intro to Motion Motion diagrams; particle models	Read Sections 2.1 & 2.2 <b>HW#1:</b> 2.1 Section Review (p.33) 2.2 Section Review (p.37)
2		Position-Time Graphs <b>CW#1:</b> In class problems ( 9-18, pp 39-41 )	Read Sections 2.3 & 2.4
3		Position-Time Graphs, continued <b>CW#2:</b> Motion Detector	<b>HW#2:</b> 2.3 Section Review (p.42)
4		Ch 2.4 Notes <b>CW#3:</b> In-class problems (25-28, p 45)	
5		Review Problems	<b>HW#3:</b> Mastering Concepts (p.52): 35 - 42 Applying Concepts (p.52): 46,47,48
6		Review	
7		<b>Unit 2 Test</b>	



**Note:** Homework is due on the day following the assignment, unless otherwise noted.

**Objectives / Essential Learnings:** (key terms in **bold**)

1. Define **coordinate system**. Explain the idea that motion is relative (**frame of reference**).
2. Draw **motion diagrams** and **particle models** to represent moving objects.
3. Explain the difference between a **scalar** quantity and a **vector** quantity.
4. Be able to add and subtract colinear vectors.
5. Distinguish between **position** and **distance**.
6. Distinguish between **displacement** and **distance**.
7. Interpret and plot **position-time graphs**.
8. Distinguish between **speed** and **velocity**.
9. Distinguish between **instantaneous velocity** and **average velocity**.
10. Demonstrate the ability to calculate **average velocity** and to solve an equation involving  $v$ ,  $d$ , and  $t$ .
11. Be able to determine the **slope** of a curve on a position-time graph and calculate the velocity.

$$\Delta t = t_f - t_i \quad (\text{time interval})$$

$$\bar{v} = \frac{\Delta d}{\Delta t} \quad (\text{average velocity})$$

$$\Delta d = d_f - d_i \quad (\text{displacement})$$

$$d = \bar{v}t + d_i$$