

**WEEK OF:** SEPTEMBER 14, 2020

**CLASS:** Physics 111 – A Block

**TEACHER:** Mrs. Burke

**CONTACT INFO:** [Deborah.Burke@thedeltahighschool.com](mailto:Deborah.Burke@thedeltahighschool.com) (contact via direct email, through Teams, and through Remind = dhsphy111a)

**OBJECTIVES:**

- Algebraic manipulation of formulas
- Exploring the gravitational constant with pendulums
- Ways to improve data accuracy and precision
- Model forces using free-body diagrams

**CLASSROOM MEETING TIMES:**

Tuesday and Friday  
1:20-2:00 pm

**LINKS:**

Check TEAMS POSTS for Zoom link information (we will use Zoom if it is working, Teams if Zoom is unavailable).

**YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #1:**

- Build a pendulum using lab supplies (you may add string/dental floss if you wish and have that available)

**YOUR RESPONSIBILITIES AFTER ZOOM #1:**

Have notes detailing the learning you've experienced toward meeting the objectives state above. Put these into your Teams > Class Notebook > Class Notes file.

**YOUR ASYNCHRONOUS RESPONSIBILITIES AFTER ZOOM #1:**

- Complete the "Pendulum Determination of Gravitational Constant" lab (20 swing data sets) and post the values in the class spreadsheet in Teams.
- Select outliers from your own data and highlight them on the spreadsheet = "Data Evaluations"
- Compare value of gravitation results from the two methods (drop v pendulum) and respond to the assignment "Gravitation determination: drop v pendulum" (available via Teams)

**YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #2:**

- Access Free-Body Diagram review materials
- Do practice problem (half of 1-10) on Free-Body Diagram worksheet

**YOUR RESPONSIBILITIES AFTER ZOOM #2:**

Have notes detailing the learning you've experienced toward meeting the objectives state above. Put these into your Teams > Class Notebook > Class Notes file.

**YOUR ASYNCHRONOUS RESPONSIBILITIES AFTER ZOOM #2:**

- Do practice problem (half of 11-12) on Free-Body Diagram worksheet

**IDEAS FOR USING YOUR ASYNCHRONOUS TIME:**

Lab activities: gather data pendulum, complete calculations, evaluate data, compare data sets (drop v pendulum), respond to assignment, free-body diagrams review and practice

**DUE DATES:**

- Pendulum calculations: Wednesday Sept. 16<sup>th</sup> by 9 pm.
- Data evaluations: Thursday Sept. 17<sup>th</sup> by noon
- Free-body diagrams practice worksheet (1-10): Friday Sept. 18<sup>th</sup> by noon
- "Gravitation determination: drop v pendulum" response: Saturday Sept. 19<sup>th</sup> by 6:00 pm
- Free-body diagrams practice worksheet (11-12): Tuesday Sept. 22<sup>nd</sup> by noon

**TEST DATES:**

Synchronous quiz during synchronous session 2 (identifying proper free-body diagram use)  
= Sept. 18th

**OFFICE HOURS:**

11:45-12:45: email, contact through Remind, message through Teams. Look in Teams Posts for link to video access.