WEEK OF: December 14, 2020

CLASS: Physics 111 – A Block

TEACHER: Mrs. Burke

CONTACT INFO: Deborah.Burke@thedeltahighschool.com (contact via direct email, through Teams, and through Remind = Dphys111T2)

OBJECTIVES:

- Develop understanding of drag
- Increase variable symbol recognition
- Practice algebraic manipulation for problem solving
- Explore motion graph relationships

ZOOM LINKS:

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

YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #1:

- Complete drag worksheet problems
- Watch real-world connection video https://www.youtube.com/watch?v=JL8PayB8r6c
- Read OpenStax College Physics section 2.8

Journal Entries:

- Relationship between viscosity and friction force
- Relationship between surface area and friction force
- Relationship between velocity and friction force
- Drag worksheet practice

Resource Interaction:

- Read OpenStax College Physics section 2.8 (take notes!)
  - Key Concepts
  - Example problem(s)
  - Questions
- Watch drag video https://www.youtube.com/watch?v=JL8PayB8r6c
  - Key Concepts
  - Example problem(s)
  - Questions

SYNCHRONOUS MEETING #1:

- Drag worksheet breakout room Q&A and whole class Q&A
- Lab activity explanation: graphic car motion

YOUR RESPONSBILITIES AFTER ZOOM #1:

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

YOUR ASYNCHRONOUS RESPONSIBILITIES AFTER ZOOM #1

- Come to office hours with your study group
- Build a car using K'nex (or find/build any rolling object)
- Begin the Graphing Motion Lab activity

YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #2

Complete the Graphing Motion Lab activity

- Build/find a rolling object
- Take measurements of motion
- Make graph set to describe motion

SYNCHRONOUS MEETING #2:

- Calculating changes to acceleration of a dropped object
- Drag acceleration and graphical representation relationship

YOUR ASYNCHRONOUS 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 > Journal
- Take the Drag Quiz

Journal Entries:

- Rolling object motion measurements
- Rolling object motion graphs (x/t, v/t, a/t)
- Describe the graphical relationship between position, time, and velocity
- Describe the graphical relationship between velocity, time, and acceleration
- Compare units of velocity to position, time graph
- Compare units of acceleration to velocity, time graph
- Compare units of acceleration to position, time graph

Resource Interaction:

- Read OpenStax College Physics section 2.4 (take notes!)
  - Key Concepts
  - Example problem(s)
  - Questions

IDEAS FOR USING YOUR ASYNCHRONOUS TIME:

Study TOGETHER
Textbook reading
Lab activity
Journal entries

DUE DATES:

- Drag quiz Friday Dec. 19th
- Paperwork for college enrollment: December 16th

OFFICE HOURS:
11:45-12:45: Look in Teams Posts for Zoom link. Drop-in format. If you are taking this course for college credit, you are expected to attend office hours weekly. This is a good opportunity to work together in a study group. You may also request a breakout room for a study group for any other class.
Other contact options: email, Remind, Teams post