WEEK OF: SEPTEMBER 28, 2020

CLASS: Physics 111 – A Block

TEACHER: Mrs. Burke

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OBJECTIVES:

- Model forces using free-body diagrams
- Understanding F=ma
- Exploring the gravitational and potential energy
- Algebraic manipulation of formulas

CLASSROOM MEETING TIMES:
Monday and Thursday
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:

- Free-body diagrams practice worksheet completion (see Homework in Teams Notebook)

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 > Class Notes file.

YOUR ASYNCHRONOUS RESPONSIBILITIES AFTER ZOOM #1:

- Free-body diagrams practice worksheet completion (see Homework in Teams Notebook)
- Net Force Worksheet – any 5 problems ((see Homework in Teams Notebook)

YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #2:

- F=ma worksheet - any 5 problems (see Homework in Teams Notebook)
- Create a scenario that clarifies F=ma (put in your Teams Class Notes)

YOUR RESPONSBILITIES 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:

- F=ma Worksheet – finish (see Homework in Teams Notebook)
- Net Force Worksheet – any 5 problems (see Homework in Teams Notebook)
- GPE and KE Worksheet #1 – any 4 problems (see Homework in Teams Notebook)
- Draw force diagrams for each of the 4 problems completed on GPE and KE Worksheet #1

IDEAS FOR USING YOUR ASYNCHRONOUS TIME:

Net force calculations, F=ma calculations, force diagram practice, GPE and KE calculations

DUE DATES: ***(all in "Teams – class notebook – homework" unless noted)***

Thursday Oct. 1st by 1 pm

- Net Force worksheet (5 problems)
- F=ma worksheet & free-body diagrams (½ of 1-10)
- F=ma scenario – *Teams - class notebook – class notes*

Monday Oct. 5th by 1 pm

- Net Force worksheet (5 more problems)
- F=ma worksheet & free-body diagrams (finish)
- GPE and KE Worksheet #1 WITH force diagrams (4 problems)

Thursday Oct. 8th by 1 pm

- GPE and KE Worksheet #2 WITH force diagrams (5 problems, including #10)

TEST DATES:

Oct 1st Quiz during synchronous session 1 (net force and F=ma) (info only, no grade)

Assessments: These will be single-topic, short quizzes that earn grades
No more than one will be given in a day. They are open-note and openinternet
TIMED tests done during ASYNCHRONOUS time.

<u>Week of Sept. 28th:</u>

$T = 2 * \pi \sqrt{\frac{L}{g}}$ and $y = \frac{1}{2} gt^2$ *[algebraic rearrangement, use to solve for different variables]*

Free body diagrams *[identifying forces, proper arrow use, labeling, interpreting for motion]*

<u>Week of Oct. 5th:</u>

Net force *[algebraic rearrangement, use to solve for different variables, symbols indicating direction, interpreting for motion]*

Force formula (F=ma) *[algebraic rearrangement, use to solve for different variables, effects of changing variable values]*

<u>Week of Oct. 12th:</u>

GPE and KE *[algebraic rearrangement, use to solve for different variables, relationship between the two, effects of changing variable values]*

OFFICE HOURS:

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