Welcome to How Things Work II

Lecture 1 - January 16th, 2008

Course website:
- Go to the COD and click on the little icon below Physics 106.
- Go to www.phys.virginia.edu (the physics web page), click on classes under academics, and click on the class web page for Physics 106.
- Go to http://people.virginia.edu/~gdc4k/phys106/spring08
Announcements

• I am told that the textbooks will be in either today, Wednesday (Jan. 16th), or Thursday (Jan. 17th). No reading will be assigned until they arrive.

• We will be also be using "i-clickers". Quite a few are available at the bookstore, and more are on order.

• If you are trying to add-in, you may have found that you need the instructor’s permission. Please do the following:
  - Send me an email asking to add-in to the class. Do this even if you have an add-in form already. It establishes your place on the waiting list.
  - Bring an add-in form to class.

• Homework will be submitted through "eclass", a local online system. I will provide a link to eclass in a few days after the enrollment has stabilized.

• Please look over the course information handed out in class. It is also available on the web.
For anything out of the ordinary: send an email, FIRST if possible, and include "Physics 106" in the subject line.

- You need to reschedule a quiz because you are you flying to Stockholm to receive a Nobel Prize.
  Send an email explaining first! Example — Subject: Physics 106, Nobel Prize
- You won’t be handing in your homework in on time because you just had your appendix out.
  Have your friend send an email with subject heading "Physics 106, appendix removed"

In summary, when there is anything you need us to know, send an email. Telling me in class should be considered the equivalent of writing a note, sticking it in a bottle, and tossing it into the Rivanna River.
Question:

A rotary lawn mower spins its sharp blades over the lawn and cuts off the tops of the blades of grass. Would the lawn mower blades still cut the grass if the blades of grass weren’t attached to the ground?
General topic: Skating
Observations about skating

• **At rest on a level surface:**
  - If you just wait, you remain stationary.
  - If you are pushed, you start moving in that direction.

• **Moving on a level surface:**
  - If you just wait, you coast steadily in a straight line.
  - If you are pushed, you change direction or speed.
Sliding on Ice

• Moving on a level surface:
  - If you just wait, you coast steadily in a straight line.
  - If you are pushed, you change direction or speed.
Sliding on Ice

• **Moving on a level surface:**
  - If you just wait, you coast steadily in a straight line.
  - If you are pushed, you change direction or speed.
Physics concept:

• **Inertia:**
  - A body at rest tends to remain at rest.
  - A body in motion tends to remain in motion.
A rotary lawn mower spins its sharp blades over the lawn and cuts off the tops of the blades of grass. Would the lawn mower blades still cut the grass if the blades of grass weren't attached to the ground?