

## **Phox Valley Physical Science/Physics Share Group Meeting**

**January 4, 2017 (5:30 Meet n Greet, 6:00-8:00 Meeting Time)**

**UW-Oshkosh**

### **Dr. Mark Lattery (UW-Oshkosh):**

Air Resistance Lab: An object dropped with a parachute, is analyzed with video analysis. The video has a card in the background that indicates the mass of the object that is being dropped (doesn't include the parachute). The mass is their independent variable. The vertical velocity begins with a slight curve, but reaches terminal velocity. Use the last three points to give the terminal velocity. At terminal velocity the  $F_g$  is equal to the  $F_{resistance}$ .

If you do this for a number masses, you can graph terminal velocity v.  $F_{resistance}$ . The students are asked to predict the shape of the curve. The curve ends up looking like a side-opening parabola. If you then graph terminal velocity sq. versus  $F_{resistance}$ , the slope would equate to  $Area \cdot density$  of medium. Area being the area of the parachute.

Best used in an Unbalanced Forces Unit.

### **Joe C. (New London HS):**

Have kids create a Google Doc, and have the students write a "Chapter" of a textbook during each unit. Begin with the standards you are using, have them solve a real world problem (focus of their chapter). The kids need to include a discussion of the idea, example problems that will help them solve the focus question. The end of chapter would be their undertaking of solving the real-world problem. IT would be an assessment option for students who do not want the traditional quiz/test assessments.

We spent time discussing the pros/cons of such an assessment technique. One big pro would be the increase in literacy in the classroom. A big con would be the number of "chapters" to assess and provide feedback.

Also shared about EdEfficiency. See link on website under "Links."

### **Terry S. (Shiocton HS):**

Shared about Magic Cylinder drawings (anamorphic drawings) I do with my kids during curved mirrors. This also happens to be around winter break, so a fun activity to do.

Also had reflective material to share to make the cylinders.

### **Scott H. (Neenah HS):**

Shared that students struggle with stacks of graphs and interpreting from position-time to velocity and acceleration. Created a "tangent indicator" out of a broken ruler.

Also shared how he used X-mas ornaments to create a 2D projectile motion model.

Also shared that he had his kids do a self-created challenge lab for projectile motion.

### **Dan H. (SPASH):**

Shared a big packet of stuff from the first Central WI Share session.

Also shared making domino portraits. You can try this website's software to try and make one:  
<http://pagesperso.g-scop.grenoble-inp.fr/~cambazah/page5/page5.html>

**Ryan P. (Brillion HS):**

Multiple Representation Card Matching: