Upcoming Events

**September 17**
Engaging Science Lessons for the K-8 Classroom  
**Location:** CSULB – PH1-223  
**Time:** 6:00 pm-8:00 pm  
**RSVP@** www.scienceTeaching.org

**October 9**
PhysTEC Demo-Day  
**Location:** CSULB – HSCI-280  
**Time:** 4:30-5:30 pm  
**Topics:** Circular Motion  
**Contact:** amber.parker@csulb.edu  
**RSVP by 10/6 for parking permit.**

**October 28**
"The Chemistry of the Common Core and NGSS"  
**Location:** CSULB – PH2-106  
**Time:** 6:00 pm-8:00 pm  
**RSVP@** www.scienceTeaching.org

**November 13**
PhysTEC Demo-day  
**Location:** CSULB – HSCI-280  
**Time:** 4:30-5:30 pm  
**Topics:** Energy and Momentum  
**Contact:** amber.parker@csulb.edu  
**RSVP by 11/10 for parking permit.**

**November 15**
Physics Teacher Open House  
**Location:** CSULB – AS-244  
**Time:** 8:30 am-12:30 pm  
**Contact:** amber.parker@csulb.edu

**December 4-6**
2014 NSTA/CSTA Science Education Conference  
**Location:** Long Beach Convention Center  
Visit www.cascience.org for online registration and details. Registration and hotel reservations are now being accepted!

**December 11**
PhysTEC Demo-Day  
**Location:** CSULB – HSCI-280  
**Time:** 4:30-5:30 pm  
**Topics:** Our Favorite Things …Holiday Specials  
**Contact:** amber.parker@csulb.edu  
**RSVP by 12/8 for parking permit**

**PhysTEC Demo Days!**

The second Thursday of every month is a chance to collaborate with other physics teachers and share your favorite fun demonstrations and activities. Each month will focus on a different topic. The more teachers who share a demo the better! You’re guaranteed to leave each Demo Day with great new ideas to bring back to your classroom. So mark your calendar on the second Thursday of each month (Fall and Spring semesters) at 4:30 PM for the Demo Days. Free (and close!) parking is provided, and so is food!

Check out more upcoming events at [www.physicsatthebeach.com](http://www.physicsatthebeach.com)

**Let the Physics Fun Begin: AP Physics 1 & 2**

For many high school physics teachers, this year will be the start of the new AP Physics 1 course (and possibly, AP Physics 2). This change has been coming for several years, but now that it is finally being implemented, teachers are looking for resources to help them map out the course: new lessons and inquiry labs to help teach a great depth of knowledge, and sources of questions that fit the new style of AP Physics 1 & 2.

A great place to start is with the Course Planning and Pacing Guides, available on [AP Central](http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/index.html) (AP Physics 1 & 2 course home pages). In these guides, teachers who have piloted the courses give, in great detail, useful tips and techniques for teaching the course. These guides also include extensive descriptions of how they mapped out the course for the entire year (how many weeks for each unit), what labs and activities they completed, how they assessed their students, and what resources they used. At the end of each guide is a list documenting the resources they used, and where you can find them. On the course home pages, you can sign up for the AP Physics Teacher Community (online discussion group) to be in daily contact with AP Physics teachers across the country, all dealing with the same issues. You can also download a lab manual, which includes sample inquiry labs, from the course home page.

On the AP Audit website, there is a full Sample Exam for both AP Physics 1 and 2. (They are trying to keep these exams secure, so please do not post the exams elsewhere online or let your students keep copies.) The books given to teachers who attended recent College Board AP Physics workshops have more sample questions and other useful information. Additionally, there are sample syllabi, which can be a good source of lab ideas, posted on the AP Audit website.

If you are a member of the Pretty Good Physics - Secure wiki (and if you aren’t – you really should be!), teachers have posted to the site lots of useful AP Physics 1 and 2 material. For instance, in the Sample Curricula section, a teacher has arranged the Essential Knowledge’s and Learning Objectives by physics topic (kinematics, dynamics, energy …). Under Review Packets, there are files available called AP Physics Workbooks. A group of teachers created these this summer by looking at all of the questions from past exams, removing those that were just plug & chug, and making other modifications to align the questions somewhat closer to what the new exams will look like. The questions are sorted by physics topics as well. For those creating completely new tests this year, this could be a valuable source for test questions and practice problems. Labs and teaching methods are also available for every physics topic.

Connie Wells (AP Physics Course Redevelopment Committee and AP 2 Test Committee) highly recommends the TIPERs, nTIPERs, and Ranking Task books (simply search those words on amazon.com). These books contain hundreds of problems that are unlike the typical textbook problems. Based on Physics Education Research, students are expected to use higher order thinking skills and must always explain their reasoning in words.

If you have more resources that would help others in planning and teaching AP Physics 1 and 2, please let us know so we can use this newsletter to pass those on to other teachers!

**AP Course Home page:**  

**AP Audit:**  

**Pretty Good Physics – Secure (joining is easy!):**  
[https://secure-npg.wikispaces.com/home](https://secure-npg.wikispaces.com/home)

**Upcoming 1-day AP workshops:**  
10/25-Los Angeles (Wilson HS); 11/15-La Jolla HS; 12/18-Pasadena HS; 12/19-San Diego City HS; 1/16-3/22—Saturday workshops; 3/23—Sunday workshops; 4/5/2015-Los Angeles (Wilcox HS); 4/12—LA City College—AP Physics 1 Review Workshop

If you have any questions or would like to contribute to this newsletter, please contact Amber Parker at amber.parker@csulb.edu or visit the website [www.physicsatthebeach.com](http://www.physicsatthebeach.com)
PhysTEC Demo Day! September 11th 2014

Tamara gets ready to defy gravity!

Shin making some noise to illustrate free fall!

David proving that not all objects accelerate at the same rate!

Kayla getting ready to show her crazy skills!

Laura explaining how the egg demo works!

Photos by Theresa Soliz

Join us the 2nd Tuesday of each month for Physics, Fun & Food!