

WebSights features announcements and reviews of select sites of interest to physics teachers. All sites are copyrighted by their authors. This column is available as a web page at PhysicsEd.BuffaloState.Edu/pubs/WebSights/. If you have successfully used a physics website that you feel is outstanding and appropriate for WebSights, please email me the URL and describe how you use it to teach or learn physics—macisadl@buffalostate.edu.

• **STEP UP: A new organization recruiting high school women to study physics via their teachers**

STEPUPphysics.org

STEP UP (Supporting Teachers to Encourage the Pursuit of Undergraduate Physics for Women) is a national movement to empower high school physics teachers to inspire young women to study physics. High school teachers are key to increasing the representation of women in physics because this is often the first—and last—time that women take a physics course. Two research-based lessons and an “Everyday Actions” guide (with videos) have been developed to support teachers in this effort. The “Everyday Actions” guide focuses on explicit recruitment, reducing marginalization, and promoting recognition throughout the year. In the “Careers in Physics” lesson, students explore profiles of individuals with a degree in physics and then connect physics to their own personal career goals. In the “Women in Physics” lesson, students examine the conditions for women in physics and discuss gender issues. For more information and to join the movement, go to <http://www.STEPUPphysics.org>.

Submitted by Robynne Lock of Texas A&M Commerce Physics & Astronomy

• **Periscope Physics by Rachel Scherr and colleagues**

physport.org/periscope/About.cfm
physport.org/periscope/

At the recent AAPT meeting I was reminded of the Periscope Physics Video Lessons Project at the Physport website. There are over 40 lessons and in multiple themed collections, developed for university physics undergraduate teaching assistants and learning assistants (TA/LA) to help their pedagogy with other students. Site access requires registration, and the site consists of short video vignettes, discussion questions, and facilitator’s guides on questions like, “How can I bring out students’ ideas?” “What ideas do students have about tension and balancing?” and “Do students have the right to be told whether they are correct?”

• **Mechanical Machines Engineering Physics Entertainment: Joseph’s Machines**

josephsmachines.com
youtube.com/user/allonewordplease
rubegoldberg.com

The acclaimed Rube Goldberg contest is well known, particularly in undergraduate mechanical engineering circles where tinkerers and enthusiasts are encouraged to build overly complex mechanical devices to solve simple tasks. Recently a colleague introduced me to Joseph’s machines, a whimsical, grade-school student through adult-aimed and family friendly video collection of creative mechanically themed performance art by Joseph Herscher, with his sidekick Jiwi. There is also a science extras series exploring the details (wheels and axle, inclined plane, levers, pulleys, center of mass) behind the machines.

• **LIGO and Gravitational Wave Astronomy Resources for Teachers and Students**

Ligo.org
ligo.org/students_teachers_public/activities.php
gw-openscience.org/about/

A collection of classroom resources for teaching about gravitational waves, including a grade 6+ educator’s guide, “Direct Observation of Gravitational Waves,” aligned to NGSS, free online courses, classroom activities, interactive eLab, and for younger students games and word searches. All from the LIGO (Laser Interferometry Gravitational-wave Observatory) Scientific Collaboration organization; and their site is a rich go-to location for all things associated with gravitational wave astronomy.

High school students looking for science projects may also wish to explore the citizen science project analyzing gravitational wave data from the Gravitational Wave Open Science Center. That site includes tutorials and videos for understanding how to analyze GW data, and access to GW data to work with.