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WebSights offers a selection of sites appropriate for teaching a standard-topic year-long introductory physics survey course. Next month will feature sites for teaching introductory optics. All sites are copyrighted by the authors. This column is also available as a web page at <http://PhysicsEd.BuffaloState.Edu/pubs/WebSights>. If you have successfully used a site to teach physics that you feel is outstanding and appropriate for WebSights, please email me the site and how you use it for possible inclusion in our column. The person submitting the best site monthly will receive a T-shirt.

Web Resources for Teaching Introductory Circuits

The Mechanical Universe: Fifty-two half-hour university physics lessons streamed as video-on-demand free of charge. Programs 32 and 33 address the invention of the electric battery by Volta, and series and parallel circuits with Ohm's and Kirchoff's laws. Program 38 addresses alternating current. A great review reference for teachers before teaching a topic, or as enrichment or a makeup assignment for high-ability students. <http://www.learner.org/progdesc/series42.html>.

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Biographies: At <http://www.ee.umd.edu/~taylor/welcome.html>, Professor Taylor hosts several collections of biographies including "Electric Personalities." Scientists' biographies are also found at the MacTutor History of Mathematics archive at the University of St. Andrews: <http://www-groups.dcs.st-and.ac.uk/~history/BiogIndex.html>.

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Tutorials, Simulations, Visualizations and Applets: DC circuits tutorials at <http://www.physics.uoguelph.ca/tutorials/ohm/> by Bill Teesdale. Also basic E&M from the IPPEX site at <http://ippex.pppl.gov/interactive/electricity/>. Visualizations at <http://micro.magnet.fsu.edu/electromag/java/> include the Drude-like "molecular-level" model of resistance, an Ohm's law simulator and field effect transistor (FET) function. A very simple circuit simulator with activities I use with pre-service elementary teachers is found at <http://jersey.uoregon.edu/Voltage/>. A more sophisticated shockwave circuit simulator used by some HS teachers is <http://www.article19.com/shockwave/oz.htm>.

Suggested by K. Eastwood and B. Gang

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RLC Circuits simulation applets at <http://www.phy.ntnu.edu.tw/ntnujava/> and <http://mysite.verizon.net/vzeoacw1/impedance.html>. Semiconductors are discussed in tutorials in the history-themed Transistorized! <http://www.pbs.org/transistor/>, also JAVA tutorials on LEDs and solar cells at the Olympus site <http://www.mic-d.com/java/solarcell/>. A reviewed list of related E&M applets is at <http://www.merlot.org/search/ArtifactList.po?catcode=168>.

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Two General Science Cultural Website Announcements Recently Sent to WebSights:

M.A.S.S.I.V.E. database, <http://www.science-groove.org/MASSIVE/>. More than 1800 mathematics- and science-themed songs are catalogued to date. The database, run by Greg Crowther, lists available titles, recordings, lyrics, performers, and so forth. There is an accompanying 24-hour science songs Internet-streamed radio station. This is a very unique, enjoyable site.

Suggested by J. Ebert.

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The Speaking Series Home Page, <http://www.angelfire.com/tx/StatBook>. A keyword-searchable collection of over 18,000 science quotations (including physics quotations), run by Carl Gaither.

Suggested by C. Gaither.

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Errata: The January 2005 *WebSights* column mistakenly referred to a website run by "Dan Kettering." My apologies to Professor Dan Russell of Kettering University. His excellent site of animations for teaching waves, acoustics, and vibration is at <http://www.kettering.edu/~drussell/demos.html>.

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