

MERLOT Awards: Exemplary Learning Materials

The MERLOT Awards program recognizes and promotes outstanding online resources designed to enhance teaching and learning and to honor the authors and developers of these resources for their contributions to the academic community. Awards for Exemplary Online Materials are presented to authors of peer-reviewed learning resources. The awards honor the authors and developers of these resources for their contributions to the academic community by conferring the **MERLOT Classics Awards**. Each Editorial Board selects an outstanding peer-reviewed learning material in its discipline to receive the Classics award according to program criteria.

Materials are only considered for the award when they are catalogued in the disciplines for which there are Editorial Boards. Editorial Boards make their decisions regarding the Classics Award in December for award at the Emerging Technologies Conference the following Spring.

Classic Award Winners – 2015

Biology

Understanding Evolution by Roy Caldwell, University of California-Berkeley. The material and its MERLOT review can be found at:

<http://www.merlot.org/merlot/viewCompositeReview.htm?id=161582>

The MERLOT Biology Editorial Board has this to say about the Learning Material:

The site, in part, addresses in detail the potential problems teachers might encounter, including the many misconceptions about evolution. It explains why teaching evolution is essential, and suggests strategies to consider for avoiding and dealing with potential pitfalls. The level of detail and quality of suggestions are most impressive, and simply not a subject readily available anywhere else online. Any teacher who is the least bit apprehensive, or reluctant to deal with evolution because of the perceived controversy, will find an abundance of practical support, encouragement and ready-to-use materials here.

Business

Economic Policy Simulator by Gayle Allard, IE Business School, Madrid, Spain. The material and its MERLOT review can be found at:

<http://www.merlot.org/merlot/viewCompositeReview.htm?id=908415>

The MERLOT Business Editorial Board has this to say about the Learning Material:

This resource was named as a Business Classic because it helps students learn by actually doing. The students have the opportunity to determine how decisions they make can impact the economy. It is internationally relevant in today's business environment.

Chemistry

eScience News by **Michael Imbeault** The material and its MERLOT review can be found at:
<http://www.merlot.org/merlot/viewMaterial.htm?id=891431&hitlist=keywords%3DeScience%2BNews&fromUnified=true>

The MERLOT Chemistry Editorial Board has this to say about the Learning Material:

This is a beautiful open journal of science. It has sections on astronomy, biology, environmental, health, medicine, economics, math, physics, chemistry, psychology, and sociology. A great resource for everyone interested in the latest news on science.

English

Invitation to World Literature by **David Damrosch, Harvard University**. The resource and MERLOT Peer Review can be found here:
<http://www.merlot.org/merlot/viewCompositeReview.htm?id=868883>

The MERLOT English Editorial Board has this to say about the Learning Material:

This free multimedia site introduces thirteen works of world literature and provides excellent resources (including introductory videos) for studying and teaching each of them. The list of works discussed is genuinely multicultural, including familiar works taught in most world literature courses as well as works much less widely taught or known.

History

The British Museum: Ancient India by **The British Museum**. The resource and MERLOT Peer Review can be found here:
<http://www.merlot.org/merlot/viewCompositeReview.htm?id=897173>

The MERLOT History Editorial Board has this to say about the Learning Material:

The British Museum: Ancient India is a beautiful and informative site about the history, geography, and religion of ancient India. The Web site is split into discrete categories, each with an overview, story, challenge, and an opportunity to explore a site or object.

Information Technology

The App Inventor by Hal Albelson and the App Inventor Team, MIT. The resource and MERLOT Peer Review can be found here:

<https://www.merlot.org/merlot/viewCompositeReview.htm?id=926224>

The MERLOT Information Technology Editorial Board has this to say about the Learning Material:

This is an extensive hands on tutorial and development tool for students new to Android App building. Students learn basic programming by following specific examples and drag/drop options. It's a visual, blocks-based development tool for the building of apps for Android phones. Predefined blocks preclude the need for coding. However, programming concepts are integral to the blocks. There is no cost for use of the tool. It was originally developed at Google and was taken over by M.I.T.

Psychology

Psychological Research on the Net by John Krantz, Hanover College. The resource and MERLOT Peer Review can be found here:

<http://www.merlot.org/merlot/viewCompositeReview.htm?id=533041>

The MERLOT Psychology Editorial Board has this to say about the Learning Material:

Psychological Research on the Net houses links to open research projects in which users can opt to participate. The compilation of projects is broad-ranging and contemporary, and students can learn about and experience the research process by participating in actual psychological research studies. Overall, the site serves as an excellent, valuable resource for both psychology students and researchers.

Teacher Education

Meograph by Misha Leybovich. The resource and MERLOT Peer Review can be found here:

<http://www.merlot.org/merlot/viewCompositeReview.htm?id=1007301>

The MERLOT Teacher Education Editorial Board has this to say about the Learning Material:

Meograph is a web-based presentation app that can be used to produce rich, multimedia stories. With their simple, online interface, users can combine images, video, audio narration and geolocations into a playable digital story. This is a wonderful replacement for PowerPoint slideshows.

Classic Award Winners – 2014

Biology

[Virtual Cell Animations](#) - Drs. Phillip McClean, Alan R. White, Katie Reindl and Ms. Cristina Johnson, North Dakota State University

This supersite contains 20 different animations—each starting with a first look overview and a more in-depth view using static images. Each also has a flash animation with a voice over narration. By walking through the still images and movies, viewers can easily choose between either studying a specific step from one of the processes or taking a more immersive look at the process in its entirety

Business

[Accounting 211](#) – Mary Ann Mengel, Dr. Lolita Paff, Amy Roche, Penn State University, Berks

This interactive tutorial is an excellent example of a collaborative project that results in an interactive tutorial and practice exercises. As part of a hybrid course redesign, the staff of the Center for Learning and Teaching met with an accounting professor to identify problematic accounting concepts and to develop an appropriate instructional approach. Using a fictitious company, Cup of Joe-Pa, the purchase of supplies is explained and the resulting entry recorded. There are touches of humor and an available script for the hearing impaired.

Health Sciences

[Emerging and Re-emerging Infectious Diseases](#) – National Institute of Health Office of Science Education

This site explores factors associated with disease emergence and re-emergence and considers the human activities that can increase or decrease the likelihood of outbreaks of infectious diseases. Students play the role of epidemiologists looking for clues to solve the case of a mystery disease, watch simulations of herd immunity and the impact of vaccination program and assign limited funds to three proposals to address a major infectious disease.

History

[The Big History Project](#) – David Christian, Macquarie University; Andy Cook, The Big History Project

This multidisciplinary online course covers the major events in the development and history of the earth in one unified story covering 13.7 billion years. The Big History Project is a joint effort among teachers, scholars, scientists and their supporters, bringing the ideas of big history to life, providing students of all ages with unique views into different fields of knowledge.

Music

[Exploring J. S. Bach Mass in B Minor](#) – Tim Smith, Northern Arizona University and Helmuth Rilling, Conductor, The Bach-Collegium Stuttgart

This site provides a photographic facsimile of the manuscript of the Mass in B Minor by J. S. Bach as well as a recording of the work by Helmuth Rilling. In addition to the score and recording, the site provides the text and translation, 200 “cuepoints” in the score which link to additional information and media on Bach, the Mass in B Minor, performance practice of the era, the form of the Mass as well as other historical information.

Physics

[Waves: An Interactive Tutorial](#) – Kyle Forinash, Indiana University Southeast

This is an online interactive tutorial with 32 short modules, each built around a Java simulation. The modules use questions and student-centered activities to challenge the user to interact with the simulations and explore the physics. The coverage is extensive, including different types of mechanical waves and light and many of the physical properties that students find the most difficult to grasp. The use of multimedia is simple, but instructive, providing immediate feedback.

Psychology

[The Psych Files](#) – Michael Britt, Marist College

The website contains a variety of podcasts and videos exploring specific topics in psychology, using a conversational, interactive tone. There are over 200 different audio or video presentations covering all major divisions of psychology. The presentations are not geared as lectures, but rather as interesting informational overviews and/or tips to make learning psychology easier. The Psychology Editorial Board members use this exceptional resource in their classes, providing current content in a contemporary, media-driven format that students enjoy and that they learn from!

Teacher Education

[Blendspace](#) – Amy Lin, Blendspace

Blendspace is an online presentation tool that allows users to collect various types of media from across the web and present the resources as an interactive grid or playable slideshow. Original content can be blended with videos, images, simulations and full webpages. Each resource can be annotated with text, or in the Pro version, with audio narration. The Board reported, “There are very few tools that we come across that can be used in classrooms of all disciplines and levels without customization...this tool stands apart from the rest. It is ready to be used by instructors and more powerfully, by students.”

World Languages

[Spanish Proficiency Exercises](#) – Orlando R. Kelm, The University of Texas at Austin

Spanish Proficiency Exercises is a compilation of brief video clips in which native speaker of Spanish from various locations throughout Latin America and Spain demonstrate various language tasks. The objective of the exercises is to provide students of Spanish with the necessary tools to be able to talk about the same topics in Spanish. The Board noted, “World Languages always strives to find the best in the wide variety of learning materials that we have in our collection. This recipient has been a generous contributor to technology-enhanced language learning materials available free on the web. While we recognize his work in Spanish Proficiency Exercises, he has done great work in Portuguese as well and is deserving of recognition for his OER contributions to our field.”

Classic Award Winners - 2013

Biology

[Virtual Labs](#) – Cammy Huang– *Stanford University (now with Google)*

This site is an interactive and simulation-based teaching approach for human physiology. Virtual Labs was chosen for the award because of its accuracy, interactive learning exercises, and extraordinary design to engage users in the learning experience.

Business

[Big Dog's Leadership Page](#) –Don Clark – *Consultant*

This resource provides activities that can be used in class regarding Leadership for a wide variety of disciplines. The site is continuously updated and new resources are added.

Chemistry

[Organic Reaction Mechanisms \(ORM\)](#)- *Patrick Wegner - CSU Fullerton (deceased)*

The site describes organic reaction mechanisms in great detail. All the mechanisms (a real tough visualization issue for organic chemistry students) are animated and you don't need to download any other program to your computer.

History

[The Age of Exploration Curriculum Guide](#)- *The Mariners' Museum -Newport News, VA*

The museum site is an on-line curriculum guide that explains the development of maritime technologies and the principal voyages from ancient times to Captain Cook's 1768 voyage to the South Pacific. Though attention is given to some early non-Western accomplishments, the main focus is on European voyages from the Viking era through the 18th century.

Information Technology

[Zen and the art of Internet reading \(and writing\)](#) - *Larry Press - CSU Dominguez Hills*

The author provides excellent and clear notes on the presentations as well as very useful articles. The site includes great tutorials that are relevant and applicable to learners in their day to day life.

Mathematics

[Geogebra](#) - *Martin Hohenwarter - Florida Atlantic University*

Geogebra is a top MERLOT learning object for general mathematics instruction. It can be used by students and faculty at any level of mathematics and it has an impressive following in the math community.

Psychology

PSYBLOG - Jeremy Dean - University College London

PSYBLOG is a collection of blog articles on recent findings or topics of interest in psychology. The studies covered have been published in reputable academic journals in many different areas of psychology. Information is presented in an accessible and interesting way that would likely appeal to students (at all levels) and the general public.

Sociology

The Society Pages – Douglas Hartmann - University of Minnesota

This portal offers a wealth of information for students and includes a series of blogs relevant to various topics-Sociological Images, ThickCulture, Sexuality and Society, Graphic Sociology, and Sociological Lens (affiliated with Sociology Compass), to name a few.

Teacher Education

Teaching Like It's 2000 - Jennie Magiera - Academy for Urban School Leadership, Chicago

The material presented in this Blog provides a collection of training materials that promote effective usage of social media in the classroom to increase students' voices that leads to positive outcomes of social networking.

World Languages

Read Chinese - National Foreign Language Center - University of Maryland

Read Chinese is a program designed for the novice, intermediate, and advanced readers of Chinese. It is a collection of a variety of relevant reading materials for these three levels of learners.

Classic Award Winners - 2012

Biology

[Cells Alive!](#) – James A. Sullivan – *Quill Graphics*

This site provides information about cell components (such as cell wall, cell membrane, nucleus, endoplasmic reticulum, Golgi apparatus, cytoskeleton, cytosol, mitochondrion, chloroplast, peroxisome, lysosome, vacuole, etc.) and cell division (meiosis, and mitosis), as well as beautiful images in cell biology.

Business

[Accountsville. Impairment of Fixed Assets](#) – Luisa Egea – *ie Business School - Madrid*

This interactive technical note gives students the opportunity to practice their understanding of IAS 36, relevant to the impairment of fixed assets. Students must complete a series of tasks with the objective of finding out which of the company's assets are impaired.

Chemistry

[WebSpectra](#) – Craig Merlic - *UCLA*

This site contains ¹H NMR, ¹³C NMR, and IR spectral problems for all levels of organic chemistry students (beginning through graduate). Also included are some instructional documents on organic spectroscopy.

English

[Online Poetry Classroom](#) - *The Academy of American Poets*

This site provides a wealth of content on poems and poetry, emphasizing but not limited to contemporary American poets.

Faculty Development

[Learning to Teach Online Project](#) – Simon McIntyre and Karin Watson - *University of New South Wales*

The Learning to Teach Online project is a free professional development resource designed to help teachers from any discipline, whether experienced in online teaching or not, gain a working understanding of successful online teaching pedagogies that they can apply in their own unique teaching situations.

Health Sciences

[Think Cultural Health](#) - *Office of Minority Health - U.S. Department of Health and Human Services*

This learning resource provides three nursing case studies. According to the web site the "Culturally Competent Nursing Modules (CCNMs) are a case-based curriculum designed to help nurses better meet the cultural and linguistic needs of an increasingly diverse patient population.

History

[The Walled Town of Carcassonne](#) - *Ministère de la culture et de la communication - Paris, France*

The Carcassonne site details the history of southwestern France which was devastated at the time of the Crusades for alleged heresies against the Roman Catholic Church. There are good bibliographies and brief biographies on leading figures of the era.

Information Technology

[Word 2010 Interactive Tutorial](#) - *LearnFree.org - Goodwill Community Foundation, Inc.*

Word 2010 is a software program for word processing in the new Microsoft 2010 Office Suite. Word allows you to easily create professional-looking documents using various themes, visual designs, formatting tools, sharing features and more.

Sociology

The Sociological Cinema – Paul Dean, Lester Andrist, and Valerie Chepp – *University of Maryland*

The Sociological Cinema is an online resource to help sociology instructors incorporate videos into their classes. The centerpiece of the site is a searchable database of video clips. Each clip is tagged with sociological themes, year, and includes a summary of the clip with suggestions of how to use it in the classroom

Statistics

Stat2Labs – Shonda Kuiper – *Grinnell College*

The site includes guided interdisciplinary labs for first and second courses in statistics. As stated on the homepage for this site, "This site presents workbook-style, project-based material that emphasizes real world applications and conceptual understanding. This material is designed to give students a sense of the importance and allure of statistics early in their college career."

Teacher Education

Free Technology for Teachers – Richard Byrne – *FreeTech4Teachers.com*

Free Technology for Teachers is a blog written by Richard Byrne that includes various free resources and lesson plans for teaching with technology. All previous articles are archived so there's many to choose from.

World Languages

Mis Cositas - Lori Langer de Ramirez - *Herricks Public Schools*

MisCositas.com is a free web resource that offers teachers a variety of materials for teaching languages: Spanish, French, Chinese, Italian, Thai and ESL. One can find the materials by language or by material type.

Classic Award Winners – 2011

Biology

Biological Animations and Tutorials - Sumanas, Inc

This site has numerous animations covering the common topics of an introductory Biology course. The most complete animations have a step-through mode with text descriptions of each step in the animation, a narrated version of the animation, and two to four multiple choice quiz questions at the end.

Business

Processing Integrity Challenge - Susan Moncada - *Indiana State University* and Michael Seda - *Shaw Univ.*

The Processing Integrity Challenge makes use of game theory to help students learn how to determine relevant application controls for accounting systems to ensure processing integrity is achieved. It specifically addresses source data, data entry, processing, and output controls.

English

The Blake Archive - Morris Eaves - *University of Rochester*

This archive provides a comprehensive collection of digitized primary documents representing the work of William Blake as well as scholarly articles about Blake and his work. The archive supports use in the literature classroom as well as academic research, and it allows teachers and researchers to examine Blake's poems in the visual context within which he published them.

Faculty Development

MERLOT ELIXR: Sharing Faculty Stories of Exemplary Teaching - Tom Carey - *University of Waterloo*, Lou Zweier - *CSU Center for Distributed Learning*, and Season Eckardt - *CSU Office of the Chancellor*

The MERLOT ELIXR project is intended to develop and test new collaborations amongst faculty development centers and online resource repositories. The goal is to create innovative models for the development, sharing and use of discipline-oriented resources which illustrate exemplary teaching practices and which also support faculty with exemplary learning objects to help implement those practices with their students.

History`

Vikings: The North Atlantic Saga - Arctic Studies Center - *Smithsonian Institute*

This website has been produced by the Smithsonian Institution to highlight a major new exhibit on Viking exploration of the North Atlantic prepared for the millenary commemoration of Lief Eriksson's Vinland landing. But it provides a broad overview of the Vikings and their great expansion across northern Europe and the Atlantic during the 9th and 10th centuries with an eye toward revising the common perception of Vikings as barbarian despoilers.

Information Technology

Linux Survival - Calydon Tech, Inc.

This is an interactive tutorial to learn the basics of Linux operating system. The tutorial is composed of four modules, which need to be downloaded separately. These modules are intended as a quick way to get started using Linux in a simulated environment where the learner has particular goals to meet.

Library and Information Services

VAIL (Virtual Academic Integrity Laboratory) Tutorial - Kimberly Bonner - *University of Maryland University College, Olga Francois - UMUC, and Kimberly Kelly University of Wisconsin - Parkside.*

The VAIL Tutor (Virtual Academic Integrity Laboratory) is a four module tutorial that provides an overview of academic integrity and plagiarism. It introduces the learner to documentation styles, provides tips on avoiding plagiarism and discusses plagiarism policies. A printable certificate of completion is available.

Mathematics

Exploring Multivariable Calculus - Paul Seeburger - *Monroe Community College*

Exploring Multivariable Calculus is an excellent tool which a student can use to visualize surfaces in 3D. A student can enter up to four equations where some of them can be in another coordinate system such as cylindrical or spherical or even implicit.

Physics

The Pendulum Lab - Franz-Josef Elmer - *University of Basel*

This is a virtual laboratory where you can do hands-on experiments at rigid pendula. Together with the material presented in the lecture room, you can learn basic issues like harmonic oscillator and resonance but also advanced topics like parametric resonance, nonlinear dynamics, and chaos.

Statistics

Rossman/Chance Applet Collection - Allan Rossman and Beth Chance - *Cal Poly-San Luis Obispo*

This is an extensive collection of java applets that focus on topics related to probability and statistics. There are currently 28 applets in the collection, and the applets are designed to illustrate topics such as data analysis, sampling distributions, probability and inference, randomization distribution simulations, and mathematical models.

Teacher Education

Cool Tools for Schools - Lenva Shearing - *Bucklands Beach Intermediate School*

Awiki that is designed as a Web 2.0 Tools database with direct links to provide quick access for students and teachers. There are currently 18 different categories that hold several hundred different Web 2.0 tools.

Technical Allied Health

Thyroid and Parathyroid Glands - Richard Bowen - *Colorado State University*

This is part of a much larger site on the pathophysiology of the endocrine system, again part of Biomedical Hypertexts. It is organized on multi levels from core to advanced to supplemental topics.

World Languages

Visualizing Japanese Grammar - Shoko Hamano and Wakana Kikuchi - *George Washington University*

This site offers 66 units of various grammatical structures ranging from basics such as “counters”, to advanced units such as “adversity passive” in flash files with audio explanation in English and 12 PowerPoint downloadable appendices. Each unit consists of 5-10 minutes of presentations depending on the topic.

Classic Award Winners – 2010

Biology

Virtual Transgenic Fly Lab - Donna Messersmith - Howard Hughes Medical Institute

The virtual lab allows students to explore the techniques used to make transgenic flies. Transgenic organisms, which contain DNA that is inserted experimentally, are used to study many biological processes. In this lab, students create a transgenic fly to study circadian rhythms.

Business

eClips@Cornell - Deborah Streeter - Cornell University

eClips amounts to a “virtual panel” of experts, to be used to stimulate discussion, illustrate concepts, and create a real-world feel in teaching entrepreneurship. The flexibility of having clips (as opposed to feature-length video) allows the instructor to intersperse the digital video material with the text-based or discussion-based exposition in the classroom.

Chemistry

Periodic Table Live! - John Moore - University of Wisconsin

This web site is an interactive periodic table that is amazingly comprehensive with a vast array of high quality data about every element. This is the most useful and effectively designed web site associated with the periodic table that has been entered into the MERLOT collection.

English

Guide to Grammar and Writing - Charles Darling - Capital Community College

This is a multi-faceted online resource for English writers. It furnishes information on all levels from basic sentence structure to writing research papers. This site can be used as either a teaching resource or for independent study. It is complete, self-contained, and generally easy to use. A suggestion for teachers is to create worksheets or specific assignments to guide students through specific segments of this site.

Faculty Development

Brief Hybrid Workshops on Teaching Well - Ray Purdom - University of North Carolina - Greensboro

This website offers everything you need to run your own Brief Hybrid Workshop. Each Brief Hybrid Workshop package of materials a complete faculty development modulette in a nutshell that is well-developed but sharply focused, portable, and requires 15 minutes or less to complete.

Mathematics

Algebra2Go - Larry Perez and Patrick Quiqley - Saddleback College

This site visually presents lectures on pre-algebra and algebra, usually between 10 and 20 minutes in length. In each movie, a teacher is interacting with a student as the lesson is presented and discussed. The format of the lecture is a cross between a reality show and a sit-com and is engaging, with humor and drama.

Music

Noteflight - Joe Berkovitz - Noteflight

This is a wonderful tool that has been needed for years. This is a Web 2.0 music notation program that allows musicians to share their compositions easily with just a web browser. It is structured to allow students and teachers to share notated musical work.

Physics

Java Optics Course - Grup d'Innovació Docent - University of Barcelona

The Java Optics Course is a collection of Open Source Physics simulations that cover important topics in optics. The simulations include ray tracing, refraction and optical fibers, interference effects, and Fourier optics. There is also an excellent simulation of the eye and the physics of poor vision. The theoretical background of the physics simulated is described for each applet, and videos of real experiments are available for comparison with simulations.

Statistics

ARTIST (Assessment Resource Tools for Improving Statistical Thinking) - Joan Garfield - Univ of Minnesota

The ARTIST website makes a great contribution to the field of Statistics Education by including many assessment resources for instructors (such as an assessment builder with hundreds of questions about a variety of different topics, samples of authentic assessments such as project descriptions and article or graph critique assignments, and links to many other assessment resources such as papers about assessment and implementation issues related to assessment).

Teacher Education

Voice Thread - Steve Muth - VoiceThread

A VoiceThread is an online media album that can hold essentially any type of media (images, documents and videos) and allows people to make comments in 5 different ways - using voice (with a microphone or telephone), text, audio file, or video (with a webcam) - and share them with anyone they wish. As teacher educators, we see tremendous potential for use both in and out of classroom

World Languages

Novosti Nedeli - Richard Robin - George Washington University

NOVOSTI NEDELI delivers a survey of the previous week's news in simplified standard Russian language. The site provides recordings of Russian news presented at a slightly slower rate of speech, pre-listening background information and exercises, vocabulary support and post-listening activities with interactive exercises and transcripts. MERLOT World Languages applauds Dr. Robin's use of authentic materials to enhance the listening comprehension of students of this critical language.

Classic Award Winners – 2009

Biology

[The Biology Project](#) - **Bill Grimes, Rick Hallick, and Ken Williams** - University of Arizona

The Biology Project takes the novel approach of first asking the students questions - if the student's answer to a question is incorrect the student then gets a tutorial that uses text and graphics to explain the concept that was being assessed. The eight modules at this site cover a range of important biological subjects with good assessment questions and excellent tutorials.

Business

[Introduction to Marketing Unit for Principles of Marketing](#) - **M. Louise Ripley** - York University

This is the first of eleven modules created to support a Principles of Marketing course. This is one of the most thorough modules, addressing the essential terminology and concepts without overwhelming introductory-level students. The module consists of learning activities, examples, interactive assignments for students, theoretical foundations, and references supporting content in the course discussion.

Criminal Justice

[Victims Virtual Walkthrough](#) - **Criminal Justice System** - U.K.

This site provides an interactive virtual tour of the criminal justice system of England and Wales as it relates to being a victim of crime. This site presents visitors with a wide range of subjects that will offer a comprehensive understanding of the criminal justice system in England and Wales. Students will enjoy the inter-activeness of the site and will also learn how another criminal justice system operates.

Faculty Development

[Educational Uses of Digital Storytelling](#) - **Bernard R. Robin** - University of Houston

Educators at all levels can use Digital Storytelling in many ways, from introducing new material to helping students learn to conduct research, synthesize large amounts of content and gain expertise in the use of digital communication and authoring tools. It also can help students organize these ideas as they learn to create stories for an audience and present their ideas and knowledge in an individual and meaningful way.

Fire Safety

[Half Hour to Tragedy](#) - **U.S. Chemical Safety and Hazard Investigation Board**

This animated case study material is extremely effective and very professionally produced. This material gets the point across to everyone about how to handle HazMat emergencies, in particular, propane. Visual effects dramatically demonstrate consequences of the errors in decision-making and, as such, enhance student retention by making the material extremely relevant.

Health Sciences

[Tox Town](#) - **National Library of Medicine/National Institute of Health**

This interactive learning resource provides an introduction to chemicals and environmental health risks that we face in our everyday lives. It includes a variety of neighborhoods that range from the city to rural areas. It also includes the US-Mexico border and is available in both English and Spanish. It includes teaching resources such as classroom activities, interactive resources, and careers

History

[Liberty, Equality, Fraternity: Exploring the French Revolution](#) - **Jack Censer and Lynn Hunt** - **UCLA**

Liberty, Equality, Fraternity: Exploring the French Revolution offers an excellent opportunity to delve into the details of the French Revolution using a wide variety of primary source materials, which includes 338 texts, 245 images, and a number of maps and songs. The site was many years in the making, and was the product of work by several leading historians of the French Revolution.

Library and Information Services

[Scholarly vs. Popular Periodicals](#) - **Eli Moody** - Vanderbilt University

Addressing the question, what is the difference between popular and scholarly journals, this video presentation succinctly provides an answer. Employing simple graphics and color images to explain the concepts of peer review and trade publications, criteria and visual cues are provided to assist neophytes in distinguishing between scholarly and popular journals.

Mathematics

[Flash Mathlets](#) - **Barbara Kaskosz** - University of Rhode Island

These applets allow students to explore and investigate various topics in college math with an emphasis on Calculus topics that involve graphing and plotting. The activities include parametric curves and surfaces that can be defined in the main coordinate systems: rectangular, polar, cylindrical and spherical. The authors also provide tutorials for developers who would like to create their own applets.

Music

[International Music Score Library Project](#) - **Petrucci Music Library**

IMSLP attempts to create a virtual library containing all public domain musical scores, as well as scores from composers who are willing to share their music with the world without charge. IMSLP also encourages the exchange of musical ideas, both in the form of musical works, and in the analysis of existing ones.

Physics

[Assessing-to-Learn Physics](#) - **Physics Education Research Group** - **University of North Carolina at Greensboro**

This is a very extensive database of Peer-Instruction questions, organized by topic and level. The questions in the database include both the answers and a description of the physics concepts being assessed. The web site also contains help for instructors in using these questions for formative assessment, to encourage discussion, and to effectively promote student learning.

Teacher Education

[The Jing Project](#) - **Techsmith**

Jing is a free, easy to use screen capture tool that allows for screen captures and screen casts. Jing, through Screencast, provides free storage space for users, but you can pay for more space or save your material to your own site. Jing is downloadable and available for immediate use on your desktop. If you save a screencast, a URL is generated which you can embed wherever you'd like.

World Languages

[Texas Language Technology Center](#) - **Carl Blyth and Karen Kelton** - University of Texas

The Texas Language Technology Center is a model for innovation in technology-enhanced learning materials to teach languages. Many of its projects have won prestigious awards already and several have received

five-star peer reviews in MERLOT, such as Tex's French Grammar, Le Francais interactif, Ta Falado and Spanish Proficiency Exercises.

Classic Award Winners – 2008

Biology

Connecting Concepts: Natural Selection 3: Microevolution: Evolution in a Population

Bob Jeanne and Jan Cheetham - University of Wisconsin

Students play the role of predators on moths on a tree trunk. Then, they play the role of biologist, analyzing the changing gene frequencies of the moth population and determining if the population evolved over three generations. Students will: 1) collect data by “eating” moths; 2) calculate gene frequencies for each phenotype over three generations; 3) interpret graphs of data their data to determine if microevolution occurred; and 4) explain how selection acts on populations.

Business

E Commerce Business Ethics Case - Terry Morris , Harper College

Students explore ethical decision making and current issues in e-commerce as they follow the developments of E-Kin -- a company started by graduate students. As E-Kin grows and delves into the world of e-commerce, the founders and executives encounter some tough decision making. The case study is presented in a multimedia format, with Flash movies which describe the company background, scenarios of business ethics issues, and an overview of ethical decision-making. The case studies were written by graduate students of Dr. Beverly Kracher at Creighton University. Permission was given to the author to adapt the materials to a multimedia format, publish to the Web, and submit to Merlot. The case study consists of four scenarios -- each with a Flash movie scenario, company employee bios, and case questions. Additional resources include a page of e-commerce links and an e-commerce newsfeed.

Chemistry

3DMolSym - Michael Sigalas and Nickolas Charistos - Aristotle University of Thessaloniki - Greece

3DMolSym is a molecular visualization educational program designed to visualize the symmetry elements of molecules and to animate the corresponding symmetry operations in an interactive 3D environment. It is aimed to help chemistry students conceive the symmetry properties of the molecular structure. 3DMolSym includes a searchable database with symmetry and geometry data of 48 organic and inorganic molecules, corresponding to all point groups of chemical interest.

Faculty Development

The Common Craft Show: Sense Making for the Masses - Sachi and Lee LeFever, Common Craft

The Common Craft Show is a series of short explanatory videos on current topics of interest related to instructional technology. Titles include: Blogs in Plain English, Wikis in Plain English, Social Networking in Plain English, Social Bookmarking in Plain English, Online Photo Sharing in Plain English, and RSS in Plain English.

Health Sciences

Outbreak at Watersedge - Debra Olson and Amy Scheller - University of Minnesota

The site is an interactive game. The game shows a variety of people involved in halting an outbreak and only the intern can save them! The players receive case files, maps, visit locations, take samples and draw conclusions. Players not only try to solve the case, but learn about public health careers. A teachers guide and related links are included.

History

Great Unsolved Mysteries in Canadian History - Peter Gossage - University of Usherbrooke – Canada

This site includes a collection of nine historical mysteries which draw students into Canadian history, critical

thinking and archival research through the enticement of solving historical cold crimes. Each of the mystery archives includes an average of 100,000 words in English (and in French), as well as up to several hundred images plus maps. Some of the mystery websites also include 3-D recreations, videos and oral history interviews. Site users can look at the collections of archival materials and analyze the evidence provided. Students are encouraged to come up with their own interpretations of primary documents. Educators have access to a Teachers' Guide and experts' interpretations for each of the mysteries.

Mathematics

Demos with Positive Impact - **David Hill** - Temple University, **Lila Roberts** - Georgia College and State Univ. Demos with Positive Impact is a collection of quick classroom demos that enhance the learning of mathematics content through animations, experiments etc. Each demo comes with stated objective, prerequisites, instructor notes and platform info, plus the level of the demo and credits. This setup appears conducive to quick inclusion into a class.

Music

The Emerson String Quartet: The Bartok Quartets - **Weill Music Institute at Carnegie Hall**

Explore the six string quartets of Bela Bartók through the vision of the Emerson String Quartet in this amalgamation of video footage, written commentary, and animated score. Much of the video was taken during a workshop given by the Emerson members in 2003 and has been supplemented with additional video of Emerson members and others speaking about the quartets. This site is intended for performers who are preparing these pieces as well as listeners and concertgoers who wish to learn more about the Bartók quartets and about the many musical decisions that must be made in order to perform these demanding works.

Physics

Math and Physics Applets - **Paul Falstad**

This site provides a large selection of physics and math simulations. There is also fairly comprehensive explanatory information about the science and computation behind the applets. The applets are fairly small, and load quickly (even on dial-up), but are very broad in their coverage of topics. These applets are useful for illustrating physical systems and behavior that can not, in general, be observed by experiments.

Teacher Education

Pageflakes - Teachers Edition - **Dan Cohen**

Page Flakes - Teacher Edition is a site that allows academics to create personal pages that are hosted on the site without cost. Pageflakes is your personalized homepage on the Web. Your favorite news, weather, sports, entertainment, photos, videos, music, email and much more – all on one page that you can access from anywhere. What's more, you can collaborate on your page with your friends, or publish it to the entire world.

World Languages

Rutgers Multimedia Chinese Teaching System - **Ching-I Tu** and **Holly Tyson** - Rutgers University

Computer-based multimedia curriculum to supplement first, second, third, and fourth year language instruction at Rutgers, the State University of New Jersey.

Classic Award Winners – 2007

Biology - Classic

[e-Skeletons](#)

John W. Kappelman, Jr., University of Texas Austin

This interactive site allows participants to learn about skeletal anatomy by viewing the bones of a human, chimpanzee, and baboon. Users select a bone from the list of four bone types on the skeletal image, and launch the bone viewer. A detailed look at each bone from six viewing angle options is provided along with the option to select another bone or make a comparison with another species (chimpanzee or baboon). The Comparative Anatomy section enables users to make direct comparisons of bones. The material is appropriate for science teacher education as it illustrates how careful observation leads one to wonder about the dizzying beauty of a planet that works by bringing us one different creature after another.

Business

[Guide to Financial Statements](#) - *Arthur Downing, Baruch College*

A 45-minute in-depth interactive tutorial that explains 3 financial statements: Income Statements, Cash Flow Statements and Balance Statements. It begins with an introduction to the financial statement and then explains income statements, balance sheets and cash flow statements. The tutorial also provides information on ethics in accounting. Other topics included in the tutorial are foreign exchange accounting and business ethics accounting.

Chemistry - Editors'

[VR Molecules](#) - *Mark Couture, Télé-université* **VR Molecules** is an online simulation presenting dynamically and interactively the vibration and rotation modes for 24 molecules (out of a more extensive list) containing up to twelve atoms. It allows the user to create and save on one's hard disk documents containing, much in the same way as a Power Point presentations, up to 10 "pages", each featuring one or two molecules with specific parameters (viewpoint, active modes, etc.). **VR Molecules Pro** can also be used to make one's presentations available through the Internet. One can also associate sound and text explanations to each page of an online presentation, thus creating a full-fledged multimedia document.

Faculty Development

[Access eLearning- GRADE Project](#), *Georgia Tech University*

This learning material is a free, online ten-module tutorial that offers information, instructional techniques, and practice labs on how to make the most common needs in distance education accessible for individuals with disabilities, and enhance the usability of online materials for all students. The Faculty Development Editorial Board believes this site is outstanding because it is relevant to instructors in all disciplines as well as those in the corporate world.

Health Sciences

[Assessing Blood Pressure](#) - *Scott Barker, Danny Mistry, & Andrew Winterstein, CSU Chico; Univ of Wisconsin*

The Raid on Deerfield in 1704 is an interactive assessment which helps develop student skills of analysis and critical thinking. The History Editorial Board selected this site because the content is excellent with cultural information on background, scenic descriptions, food-ways, clothing, entertainment and leisure, society, and government for the French and English in North America as well as several Indian tribes.

History

[Raid on Deerfield](#)- **Pocumtuck Valley Memorial Association, Memorial Hall Museum**

The Raid on Deerfield in 1704 is an interactive assessment which helps develop student skills of analysis and critical thinking. The History Editorial Board selected this site because the content is excellent with cultural information on background, scenic descriptions, food-ways, clothing, entertainment and leisure, society, and government for the French and English in North America as well as several Indian tribes.

Information Technology

[Camtasia Tutorial](#)- **Michael Fimian, Kaplan University**

This learning material is a step-by-step tutorial for learning how to use Camtasia. The material is animated and the audio provides clear, easy instructions on how to use Camtasia. The Information Technology Editorial Board selected this site because of the ease of use, the ability to select certain portions of the tutorial and for the outstanding graphics provided.

Mathematics

[Graph Theory Lessons](#)- **Christopher Mawata, University of Tennessee - Chattanooga**

Software that can draw, edit and manipulate simple graphs, examine properties of the graphs, and demonstrate them using computer animation. It can display information about a graph like the number of vertices and their degrees, the adjacency matrix, the number of components, and articulation points. It can find complements of graphs, line graphs, find the chromatic number of a graph, check if a graph is bipartite, and check if two graphs are isomorphic or if one graph is a sub graph of another and find the dual graph of a planar graph in many cases. It also demonstrates Euler and Hamilton circuits, searches, and algorithms for finding minimum spanning trees. This project is targeted at undergraduate beginning classes in Graph Theory.. It is assumed that the students have some measure of mathematical sophistication; for instance that they are able to write an induction proof etc. The subject matter addressed are topics typically found in undergraduate graph theory and discrete structures classes. These topics are central to graph theory and essential to further learning in the area.

Music

[Music Theory and History Outline](#)- **Brian Blood, Dolmetsch Musical Instruments**

The theory of music is a description of the way we think about, or believe we should think about, music and about its notation, structure and performance. You do not need to know anything about music theory to enjoy listening to music but it is essential should you decide to take a more practical interest in the subject, for example, by learning to play a musical instrument, for, as Leonardo da Vinci, himself a fine performer on the *lyra da braccio*, said about painting, "You must not only believe what you see, you must also understand what you see", so it is with music: to listen properly, we must understand what we hear. In addition to the extensive introduction to music theory, they have prepared a series of essays on music history. They have highlighted topics that are easily isolated within a narrow time period and have offered introductory remarks that may help prepare those seeking deeper insight from more substantial published works. The history resource will be extended but even then it is not designed to give any sense of progress which, they believe, is an artificial way of looking at any history, and particularly the history of music.

Physics - Editors' Choice

[MIT Physics 8.02: Faraday's Law](#) - **John Belcher, Massachusetts Institute of Technology**

This collection of 16 animations and simulations covers the topic of Faraday's law and induction. They illustrate the currents and fields induced by moving magnets and changing magnetic fields. The Physics

Editorial Board selected this learning material because it moves the class beyond the simple, analytically solvable problems usually covered in introductory classes.

Statistics

[Rice Virtual Lab Sampling Distribution](#) - David Lane, Rice University

Rice Virtual Lab contains simulations and demonstrations for both the student and instructor that give a visual demonstration of the concept and further explain the concept. Practice exercises are provided for each of the statistical concepts in the package along with a section of Cases that provide independent practice for the student to develop "ownership" of the information. The Statistics Editorial Board selected this material as it is a very useful teaching tool and very resourceful in its applications.

Teacher Education

[Quest Garden](#) - Bernie Dodge, San Diego State University

Many instructors have found a WebQuest to be a successful way to engage student with an inquiry-oriented learning activity, but most instructors are limited to using WebQuests created by others because of a lack of web authoring skills. Bernie Dodge has provided a solution to this problem by introducing Quest Garden, a low-threshold application for and hosting WebQuests. The Teacher Education Editorial Board selected this learning material because it is a true interactive learning object that allows instructors to enter their own content into a template and publish a finished WebQuest that can be used in the classroom. [View QuestGarden - Teacher Education Award Winner 2007 video.](#)

World Languages

[Lingu@net Europa](#) - Lingu@net, National Centre for Languages

Lingu@net Europa is a multilingual, on-line resource centre for foreign language learning. It provides information about, and links to [good](#) on-line resources from around the world relating to the learning and teaching of any modern foreign language. Lingu@net Europa is based on the idea that if you are learning or teaching a language you could be interested in relevant resources in any language you understand - not only the resources you can find by searching in your mother tongue. Lingu@net Europa gives multilingual access to over **3,500** catalogued on-line resources, many of them specifically for learners. It also offers support for adult learners on how to learn a language, how to assess your level and how to communicate with other learners on-line. These sections have been developed by language learning specialists from throughout Europe. You can access the whole site in: *Basque, Bulgarian, Catalan, Danish, Dutch, English, Estonian, Finnish, French, Galician, German, Greek, Icelandic, Italian, Lithuanian, Maltese, Polish, Portuguese, Spanish and Swedish.*

Classic Award Winners – 2006

Biology

Evolution - Anne Zeiser, Jason J. Hunke & Karen Cariani, WGBH – Boston

“Evolution” is the companion site to the eight-part PBS documentary on Evolution. The site contains multimedia previews of each of the shows in the series as well as interactive tutorials/exercises related to the theme of each show. The eight themes are Darwin’s Dangerous Idea, Great Transformations, Extinction!, The Evolutionary Arms Race, Why Sex, The Mind’s Big Bang, and What About God? In addition, the site contains an “Evolution Library” containing many different types of web-based materials that support the exploration of this topic. Three different paths can be followed: one on the scientific process, one on evolutionary theory and one on human evolution. This site was also reviewed by the Teacher Education Editorial Board and received the highest ratings possible.

Business

Cash Flow - David Annand, Athabasca University

“Cash Flow Statement” provides a very thorough and interactive, multimedia-rich approach for teaching individuals how to prepare and interpret a Statement of Cash Flows using the Indirect Method. The content is current, relevant, accurate, and includes an adequate amount of material given the complexity of the topic. The module is completely self-contained. Correct and incorrect response feedback has been incorporated into the interactive activities. The module can be very useful in helping students understand one of the critical documents used in Accounting.

Chemistry

Animated Chemistry Tutorials and Models - Patrick Wegner and Andrew Montana Cal State – Fullerton

This site provides users with comprehensive and interactive tutorials (containing shockwave animations) on molecule representation and modeling including Lewis Dot representation of organic and inorganic compounds, atomic orbital and hybridization, VSEPR and molecular orbital theory. The animations cover fundamental concepts and are done in a way that the students can use them to learn at their level of understanding in general, organic, and/or physical chemistry. The site is extremely versatile in that it can be used as reinforcement for lecture and laboratory for a variety of classes. It also offers unique pedagogy support in that it is possible for instructors to use a course management system to organize, assign, and grade the tutorials and assignments.

Engineering – Editors Choice

MecMovies - Timothy Philpott - University of Missouri-Rolla

This learning tool, with impressive graphics and animations, provides extensive examples, some theory, and engaging activities, such as games to assist instructors and learners in “Mechanics of Materials,” a basic course in civil and mechanical engineering. Its major strengths are the impressive visualizations and animations included in the examples. Students can improve their skills by engaging in interactive exercises and games. Whether it is used in the classroom or on a student's personal computer, this "courseware" package introduces difficult concepts with excellent graphics and thorough explanations. MecMovies also received the 2004 Premier Award from NEEDS, the National Engineering Education Delivery System, an honor bestowed upon only one or two software packages each year.

Health Sciences

Neuroscience for Kids - Eric Chudler - University of Washington

Neuroscience for Kids is a collection of information, learning activities, and web links about the nervous

system. Basic anatomical and physiological concepts are covered. While some of the information is instructional in nature and directed toward the learner, other areas within the site are targeted more to the teacher, providing examples of “hands-on” learning activities that can be carried out in the classroom. The learning activities are clearly described and would be easy for the teacher to implement. Learners are identified as “kids” however all age groups can learn from the material presented. Most notable, the site is found in 40 personal collections.

History

[Seventeen Moments in Soviet History](#) - **James von Geldern & Lewis Siegelbaum - Macalester College**

“Seventeen Moments in Soviet History” selects seventeen years during the reign of Communism in the Soviet Union, from 1917 to 1991, to provide users with primary sources that are print, image, and video offerings in recreating the spirit and mentality of a nation emerging as a future threat, ally, and superpower to the western world. One of the great strengths of this site is the array of learning materials provided. When a year is selected, an introduction to the year comes on the screen. To the right are a list of additional resources for the selected year that include Texts, Contexts, Video, Images, and Websites. It is clear that a great deal of thought was put into the materials selected and in designing the site. The site offers a rich array of diverse materials that a creative instructor could easily adapt for instructional purposes.

Information Technology

[Web Tutorials: XHTML, DHTML, ASP.NET, JavaScript](#) - **David Adams - Macon State College**

This site provides a set of extensive Web development tutorials on these 8 subjects: XHTML/CSS, JavaScript/DHTML, ASP.NET1.1, ASP.NET2.0, ASP, PHP5, VB.NET, and XML. Each tutorial is composed of between 20 to 100 documents organized into appropriate subtopics. They might, in fact, be thought of as eight online textbooks. Interesting examples of code and their results are demonstrated. The student is further engaged by the presence of interactive elements sprinkled generously throughout the documents giving students an opportunity to see the results of code samples and to experiment with different property values. The ease of navigation, interactive elements, and linked references all provide advantages of this format as compared to a textbook covering the same material.

Mathematics

[Larry Green's Applet Page](#) - **Larry Green - Lake Tahoe Community College**

This site contains links to dozens of applets that deal with topics in Basic Math, Beginning Algebra, Intermediate and College Algebra, Statistics, and other areas. The applets combine accurate, carefully-presented mathematics with immediate feedback (often graphical). Many feature a step-by-step tutorial approach, with feedback on correctness and hints being provided at each step in the guided solution of a problem. Many current college students need remediation and/or help with developmental math, algebra, statistics and calculus; Larry’s applets and related instructional materials address these areas admirably. His experience as a veteran math instructor has guided his choices and his goal is to help students overcome the learning obstacles along their paths through the use of interactivity and immediate feedback.

Music

[Teoría.com](#) - **José Rodríguez Alvira - Conservatory of Music of Puerto Rico**

This site is a broad collection of music theory and analysis using Flash learning objects. The learning objects on the site are divided into three categories: Tutorials, Exercises and Reference. The Tutorials include Reading Music, Intervals, Scales, Chords and Harmonic Functions. The Exercises include Rhythmic Dictation, Clef Reading, Intervals, Scales, Key Signatures, Chords, Harmonic Functions and Jazz. Reference includes

Reading Music, Intervals, Scales, Chords and Articles (the Articles sub-category includes several analysis objects.) The information is broken up into short sections that are easy to retain. The animations are clear and often do not need the accompanying text to understand. The site has great potential for reusability as individual parts of the site could be inserted in a number of ways into an instructor's teaching sequence.

Physics - Editors Choice

[PhET – Physics Education Technology](#) - Carl Wiemann, Noah Finkelstein, Kathy Perkins, Ron Le Master - University of Colorado

This site provides excellent illustrations of the physical models that are so important for an expert view of physics and physical systems. The simulations provide a number of different ways to study and learn, including through movement of virtual objects, graphs, and manipulating numbers and equations. More importantly, the learning styles that the simulations encourage are those most often lacking in physics classes, which are often over burdened by paper and pencil manipulation of equations and numbers. The entire development process of these simulations is grounded in research on the ways in which students learn physics. Once created, extensive work is done to understand the impact and results of these simulations have on student learning. One of the most fascinating studies involves the virtual circuit simulator. The research work on this simulation indicates that students who use just the simulation have a better conceptual understanding of currents, voltages, and circuits

Psychology

[The Brain from Top to Bottom!](#) - Bruno Dubuc - Canadian Institutes of Health Research

This site is very useful for students in physiological psychology which is an extremely challenging course for undergraduate students. The material is very flexible with five levels of organization (molecular, cellular, neurological, psychological, and social) and three levels of explanation (beginning, intermediate, and advanced). There are diagrams as well as text and several specific information modules that provide for different ways of looking at the material and different formats. The quality of the material is excellent while the site is attractive, accurate, and well-organized. An additional plus of the site is that it is available in two languages: English and French.

Statistics

[Sampling Distribution of the Mean Tutorial](#) - Dale Berger - Claremont Graduate University

This tutorial allows introductory statistics students see the relationship between sample size and the variability of the sampling distribution of the mean. This site not only provides applets that simulate the sampling distributions of the sample mean, but it also includes detailed exercise sheets. These allow students to not only work with an online simulation but to report their findings in detail to the instructor and serve as a basis for discussion. The applet shows sample means of various sample sizes and from various populations in a graphical format, along with a graph of the (theoretical) sampling distribution. Of particular interest is the fact that the author is a Psychologist, not a Statistician.

Teacher Education

[Cyber Newseum](#) - Mike Feters - Cyber Newseum

This media-rich website provides access to current news that covers a broad range of interest. The front pages of dozens of newspapers from around the world are posted. The content is powerful, historical, and valuable for all educators, but especially for students from middle school through college, as well as their instructors. The rich resources provide concrete anchors for a wide range of curriculum development by teachers and professors. The potential for using this site as a teaching and learning tool is limited only by the instructor's imagination. It could certainly be used for studying current events, history, and civics.

Furthermore students can conduct independent study, reviews, research, and investigations due to the many choices and range in presentations.

Teaching and Technology

[FAST - Free Assessment Summary Tool](#) - Bruce Ravelli - Mount Royal College

FAST is an anonymous online survey tool that automatically summarizes students' impressions of a course and/or instructor and supplies the data directly to the instructor. The assessment tool allows a faculty member to create easily an online survey to provide feedback from students on a teaching activity, a section of a course, a clinical experience, a laboratory experiment, etc. The user can create his own questions, or choose from a pool of 374 questions. The assessment or survey tool is web-based, password-protected, anonymous, and instantaneously updated. The FAST initiative provides professional, technical and academic advice to faculty who wish to become more informed about the teaching and learning process through the application of faculty-administered, anonymous online student feedback.

World Languages

[Páginas de ayuda para estudiantes de español](#) - Enrique Yepes - Bowdoin College

Enrique Yepes' "Páginas de ayuda para estudiantes de español," provides a rich resource for Spanish instruction for students and language educators. The "Herramientas de español" has been designed as an extensive outline of essential Spanish structures based on John Turner's "All the Spanish Grammar You Really Need to Know." The site also links to other outstanding websites for grammar-tutorial drills. In addition, the user will find a complete grammar guide for most of the grammatical concepts of the Spanish language, a guide for use in writing, and a writing style manual. There is evidence throughout of excellent web design features, and application.

Classic Award Winners – 2005

Biology

[Water on the Web](#) - *Bruce Munson, Richard Axler, Cynthia Hagley, George Host, Glenn Merrick, Carl Richards, Scott Robertson, Elaine Ruzycski, and Norm Will, University of Minnesota*

This site provides an extensive list of materials, lessons, and data sets for examining a wide range of limnological questions. The student section offers handouts and directions for investigating freshwater systems. Real time data on various water quality parameters from Minnesota lakes is a central feature of the site. Data can be viewed as HTML or Excel files.

Business

[Design Your Own Movie Theater](#) - *Tom Novak, Vanderbilt University*

Set in the context of movie theatre preferences, this exercise asks students to order, from most preferred to least preferred, eighteen hypothetical theater configurations which vary in terms of five attributes: ticket price, line-of-sight, seat comfort, audio/visual equipment, and concessions. The resulting output lists the relative importance of each attribute to the student, and provides part worth information for each level of the five attributes.

Chemistry

[WebElements](#) - *Mark Winter, University of Sheffield*

This site provides a wealth of data such as element history, uses, geology, biology, reactions of the element, compounds, bond enthalpies, radii in compounds, lattice energies, reduction potentials, electronic configurations, ionization energies, electron affinities, electronegativities, effective nuclear charge, electron binding energies, atom radii, valence shell radii, bulk properties, thermal properties, thermodynamic properties, crystal structure, NMR, naturally occurring isotopes, radioisotopes, and even a compound index!

Engineering

[Thermal Power Plant Micro Module](#) - *Jim Bugg, University of Saskatchewan*

This learning object discusses and provides animations of the basic processes and components in a thermal electric power plant. It is comprised of two main parts: 1) Rankine cycle descriptions and animations, and 2) a Rankine cycle calculator. Cycle descriptions and animations include the Carnot cycle, the basic Rankine cycle, and advanced Rankine cycles with reheating and feedwater heating.

Health Sciences

[Native American Elders Health Care Series](#) - *Gloria Craig, Kay Foland, and Tish Smyer, South Dakota State Univ*

This is an online project designed for nurses who work with elderly Native Americans, a population that experiences a high rate of preventable illnesses. A major emphasis is on learning to incorporate preventive healthcare and chronic disease management sensitive to language barriers, economic factors, and health beliefs.

History

[Valley of the Shadow](#) - *Edward L. Ayers and Andrew Torget, University of Virginia*

This interactive site has students browse reproductions of records and documents pertaining to two similar towns in Pennsylvania and Virginia just before and during the Civil War to determine for themselves how the issues of the day and events of everyday life affected ordinary people.

Information Technology

[Boolean Operators](#) - *Marybeth McCartin, New York University*

This interactive site demonstrates Boolean operators through the use of a specific research question. The process is divided into four steps: Choose keywords, Choose Boolean operators, Execute search, and Review results (apply skills to periodical abstracts), and Nesting and Truncation. Each step includes a brief explanation, an example, and a "Now you try it" section with immediate feedback.

Math and Editors' Choice

[Mathematical Visualization Toolkit](#) - *James H. Curry and Anne Dougherty, University of Colorado at Boulder*

This site consists of a collection of plotting and solving applets featuring a uniform user interface and has value and effectiveness as a set of teaching/learning tools. Visualizing mathematical concepts, especially in three-dimensional space, can be quite difficult for students.

Music and Editors' Choice

[Music Acoustics](#) - *Joe Wolfe, University of New South Wales*

This site provides detailed text, illustrations, and applets that demonstrate the acoustics of many western wind and string instruments as well as the human voice. The site also covers some world instruments. There are several sub-sections of the site, each devoted to the acoustics of a different instrument.

Physics

[Hyperphysics](#) - *Rod Nave, Georgia State University*

This site was honored because of its comprehensive coverage of most of physics, the creative use of multimedia and linking, and the impact it has had on students worldwide. Online tutorials cover a wide range of physics topics, including modern physics and astronomy. Material is organized through extensive concept maps.

Psychology

[Epsych](#) - *Gary Bradshaw, Mississippi State University*

This site provides a diverse collection of activities and demonstrations that serve to illustrate a variety of psychological concepts. The vast array of topics covered in ePsych ensures that almost any psychology instructor can find something of use in this dynamic site - and students are sure to enjoy it.

Statistics

[StatCrunch](#) - *Webster West, University of South Carolina*

This is a free web-based package that does a very complete range of statistical calculations designed to be user friendly. Formerly known as WebStat, it provides statistical calculation functions that would be done in most introductory statistics courses. Notable examples include being able to create histograms, pie charts, and boxplots, calculation of summary statistics and confidence intervals, and performing hypothesis tests.

Teacher Education

[The Paper Project](#) - *Charles J. Kazilek, Gene Valentine, and Jennifer Tsukayama, Arizona State University*

This site was recognized for its innovative and best practices approach to cross-curricular investigation, discovery, and reflection for K-university learners. Since 1998, the Paper Project has been exploring the structure and beauty of paper. The project chronicles handmade and mould made paper through images produced by scanning electron microscopy and a scanning-laser confocal microscope.

Teaching and Technology

[Active Learning with PowerPoint](#) - *Paul Baepler and Bill Rozaitis, University of Minnesota*

This module is an online tutorial that suggests ways faculty can use PowerPoint as a medium to support active learning. The tutorial includes sections on active lecturing, active learning strategies and their delivery via PowerPoint, creating and using effective handouts, using PowerPoint to play in-class games, and using PowerPoint for formative assessment.

World Languages and Editors' Choice

[LangMedia Foreign Language Archive](#) - *Elizabeth Mazzocco and Amy Wordelman, University of Massachusetts-Amherst*

LangMedia provides access to authentic materials that can be used in a wide variety of pedagogical settings. It features less commonly taught languages from Bangla to Wolof, as well as excellent materials in French, Spanish and other more commonly taught languages. It has a learner-centered design and appeals to a variety of learning styles.

Classic Award Winners - 2004

Biology

[Plants in Motion](#) - Robert P. Hangarter, Indiana University

Watch plants do amazing things. Learn some interesting facts while you are at it! Time lapse movies of plant growth from germination to flowering, including tropic responses, Nastic movement and circadian rhythms.

Business

[Advertising Principles.com](#) - J. Scott Armstrong, The Wharton School

advertisingprinciples.com attempts to summarize all that is known about how to create an effective advertising campaign. It converts this knowledge into principles for the development and testing of TV commercials and print ads. It contains information on developing and evaluating advertising campaigns, along with educational resources and additional related links.

Engineering

[Internal Combustion Engine](#) - Allan Kirkpatrick, Colorado State University

Internal Combustion Engine was developed to be an addition to a senior level internal combustion engine class. It contains text that reviews the subject matter and 21 applets that perform simple calculations. The Engine Performance applets under the Thermodynamic section are the most involved.

Health Sciences

[What's Asthma All About?](#) - Rajeev Venkayya, MD, Neomedicus

To understand asthma, it is important to know how the body works and reacts. This 3 part movie explains the lungs and respiratory system, what happens during an asthma attack and ways to treat asthma.

History and Editors Choice

[Crisis at Fort Sumter](#) - Richard B. Latner, Tulane University

"Crisis at Fort Sumter" is an interactive historical simulation and decision making program. Using text, images, and sound, it reconstructs the dilemmas of policy formation and decision making in the period between Abraham Lincoln's election in November 1860 and the battle of Fort Sumter in April 1861. The program primarily focuses on Lincoln, both as President-elect and as President. Viewers place themselves in Lincoln's position, consider the events that transpired, and choose a course of action at five critical junctures, called "problems."

Math

[Cut-the-Knot!](#) - Alexander Bogomolny, Cut-the-Knot.com

A mathematician's delight! This interactive column uses Java applets, in the form of a puzzle or a problem simulation. Problems are not stated directly. The applets are intended to be such that the right answer to as yet an unstated problem should be easy to surmise. State your problem, state your answer, try to justify and, perhaps, prove it. In subsequent columns, answers are provided!

Music

[Interactive Music Skill Checks](#) - David Megill, MiraCosta College

A collection of interactive skill tests for music theory, musicianship and music appreciation. These include, pitch, rhythm, scales, chords, intervals, melody, Four Part Voice Leading and drop the needle.

Physics

Illuminations - Ron Greene, University of New Orleans

A collection Java applets packaged with descriptive text that introduces students to the representation of motion by means of motion diagrams (aka strobe diagrams). The items are interactive, and provide immediate feedback and a running score, making them suitable for student self-study. A means of recording scores for a homework grade is available from the author.

Teacher Education

Authentic Assessment Toolbox - Jon Mueller, North Central College

A how-to hypertext on creating authentic tasks, rubrics and standards for measuring and improving student learning. Topics include: What is authentic assessment? Why do we need it? How do you do it? Answers to these questions as well as information on Standards, Rubrics, Portfolios, and Examples are also included. Educators at all levels will find this site useful.

Teaching and Technology

The Virtual Instructional Designer (VID) - Indiana State University (ISU), Ivy Tech State College (Ivy Tech) and Vincennes University (VU)

The Virtual Instructional Designer (VID) is a Learning Anytime Anywhere Partnership (LAAP) grant-funded project to create a Web-based performance tool for post-secondary faculty designing Web-based online distance courses. The purpose of the VID is to provide 24/7 desktop access for faculty to instructional design assistance on the process of developing online instruction or courses.

World Languages

Civilisation Française - Marie Ponterio, SUNY-Cortland

This site includes Pedagogical activities on a wide variety of topics in French civilization. Modules including audio, video interviews with native speakers, exercises, dialogues and many external links. There is also an authentic presentation of culture through photographs.

Classic Award Winners - 2003

Biology

[The Protein Explorer](#) - Eric Martz, University of Massachusetts

The Protein Explorer has revolutionized the teaching of biology at a molecular level. This site welcomes students to explore molecules visually in ways that had previously been only abstract concepts. Students can view and manipulate 3-D images of biological molecules from any computer with Internet access, allowing them to study any time, any place, in small groups or independently.

Business

[Managing the Digital Enterprise](#) - Michael Rappa, North Carolina State University

Managing the Digital Enterprise is designed to guide managers through challenges faced in the digital realm. This site is amazing in terms its professionalism and its content-it includes 15 modules, 30 case studies, 100 web pages, and over 1,000 links to outside readings. The materials are robust and comprehensive and the site also provides a good structure for the course as well as excellent supporting learning materials.

Chemistry and Editors' Choice

[The Virtual Chemistry Laboratory](#) - David Yaron, Carnegie Mellon

This site draws students into solving problems in a simulated chemistry laboratory environment that is engaging and realistic. Just like they do in many of our colleges, students checkout reagents and equipment, and then proceed to a wet lab where they mix and titrate solutions at a workbench. This realistic site can augment a wide range of learning activities both in and out of the classroom, and provides excellent documentation for students unfamiliar with working in the chemistry laboratory.

Engineering

[The Semiconductor Applet Service](#) - Chu Ryang Wie, State University of New York, Buffalo

This site provides a large collection of simulations, animations, and tutorials on semiconductor and device physics, and semiconductor device manufacture and operation. This material includes topics ranging from crystal structure and electronic energy bands through device fabrication to circuit design and simulation. The interactivity of the applets encourages students to explore effects of changing parameters on the operation of devices.

Health Sciences

[Osteoporosis and Bone Physiology](#) - Susan Ott, University of Washington

A perfect resource for healthcare professionals, teachers, and students of any age, this site lays out the key concepts of osteoporosis and bone physiology, which are then explored in detail through this visual and interactive web site. Animations, quizzes, relevant links, images and ease of navigation make this learning tool efficient and award winning.

History

[Who Killed William Robinson?](#) - John Lutz and Ruth Sandwell

Everybody loves a murder mystery. Of all the historical situations researchers encounter nothing has quite the same impact as discovering an innocent man hanged, a guilty man going free. In the case of William Robinson—an African American murdered on Saltspring Island in 1868, allegedly by a Native man who was hanged for the crime—students have a real murder case to solve, a case in which many will conclude an innocent man was hanged. "Who Killed William Robinson?" is designed to engage students at different

educational levels from junior high-school to graduate school in a detailed investigation of this murder. Taking full advantage of the non-linear and graphic features of World Wide Web, this educational site draws students into historical research through the use of 'real' archival materials, including newspaper clippings, photographs, maps, diaries, artist's reconstruction, and written narratives. Teachers can select the level of difficulty by the complexity of the questions they want answered, but students will have the opportunity to use their critical skills to construct a narrative and defend their conclusions against others.

Information Technology

[IP Addressing and Subnetting](#) - **Charles C. Botsford, LearntoSubnet**

This combined audio and Power Point presentation introduces students to binary math and how to decipher IP addresses. The highly adaptable site is divided in several modules, which takes the user through the steps of subnetting, from the easy to difficult levels of the process. College students who have some background in data communications and networking are the target student population for these learning materials, but the topic is organized so that students with no background can grasp the concept.

Math

[Fibonacci Numbers and the Golden Section](#) - **Ron Knott, Surrey University**

Flower petals? Seashells? Pinecones? Cauliflower? What do these have to do with math? The answer to this question and many more are wonderfully described and illuminated in this award-winning site. Featuring a variety of graphics, animations and applets, the well-presented materials include numerous learning assignments in the style of NCTM and AMATYC standards-based student explorations. This is a rich and impressive resource for both math students and teachers at many levels.

Music and Editors' Choice

[The Fugues of the Well-Tempered Clavier](#) - **Dr. Timothy A. Smith, Northern Arizona University and David Korevaar, University of Colorado, Boulder**

The Fugues of the Well-Tempered Clavier is a site that provides interactive multimedia analyses of most of the fugues in Book 1, and fugue II in C minor from Book 2, of the Well-Tempered Clavier by Johann Sebastian Bach. The site is an ideal study environment for these fugues, bringing together the aural, structural, analytical and historical substance of these cornerstones of the classical music repertoire. Each analysis provides a scrolling score, scrolling animated graphic structural analysis, audio and a self-scrolling textual analysis. Each analysis also allows the user to stop, start or jump to anywhere in the score at any time.

Physics

[Applets for Quantum Mechanics](#) - **Manual Joffre, Ecole Polytechnique**

Quantum mechanical systems a non-intuitive concept if ever there was one. Yet, this collection of animations and simulations of quantum mechanical systems, which covers the breadth of topics in introductory courses, does so in a way that engages students and makes these difficult concepts visible. The illustrations of quantum systems at the site promote visual and conceptual learning, important due to the non-intuitive nature of the subject. This site goes beyond standard materials, giving example modern applications and advanced topical links.

Teacher Education and Editors' Choice

[The WebQuest Page](#) - **Bernie Dodge, San Diego State University**

Wondering how to promote learning in new and thorough ways by using the Web? This site offers extensive support and examples for faculty and instructors who are using WebQuests to help students learn.

WebQuests are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis and evaluation.

World Languages

Kaleidoskop: Alltag in Deutschland - Wolfgang Hieber, Goethe Institut Inter-Nationes

Discover "Kaleidoskop" and see how Germans spend their days, what they do, think, and feel. Extensive yet uncluttered, this highly interactive site offers an ever-increasing resource that lets visitors learn more about the German people and their country. Students will find outstanding material, and instructors will find valuable teaching suggestions.

Classic Award Winners - 2002

Biology and Editors' Choice

[DNA from the Beginning](#) - Shirley Chan and Chun-hua Yang, et al.

From Gregor Mendel to the Human Genome Project, explore and understand the world of DNA, genes, and heredity, the basic building blocks of life on Earth. Key concepts are thoroughly explained through detailed descriptions and animations, image galleries, video interviews, biographies, relevant links, and interactive review problems. Cutting edge web design and ease of navigation also help to make this site the perfect resource for teachers, students, and anyone else with a desire to understand genetics.

Business

[The Cameron Balloon Factory](#) - Andy Beharrell

Understand the complexity and operation of an international business with this incredibly detailed and accurate interactive site. Virtual tours, photographs, and relevant business theories help users explore every aspect and function of this business including its history, product range, production, marketing and sales, etc. A teacher's guide and student worksheets make this site a tool for both teachers and students.

Chemistry

[Ideal Gas Law Simulation](#) - John Gelder, Kirk Haines and Mike Abraham

Whether you are looking for a visual and interactive way to teach the Ideal Gas Law, or are struggling to understand it yourself, this is the site for you. This interactive Java applet allows you to manipulate all components of the Law, while visually displaying the effects that the changes produce in the gas. A "Guided Inquiry Activity" provides a series of "laboratory" experiences designed to demonstrate the aspects of this law, making the site a well-rounded resource for students and teachers.

Health Science

[Auscultation Assistant](#) - Christopher Cable

How can medical and nursing students understand what a heart sounds like? How can medical and nursing students understand what a heart complication sounds like without actually hearing the sound? The answer is...they can't! This online multimedia resource, created by a doctor at UCLA, provides heart and breath sounds with explanations of their pathologies to help these students improve their physical diagnosis skills. This site has become an integral part of physical examination courses in schools across the country.

History

[Martha Ballard Case Study: A Midwife's Tale](#) - the Film Study Center at Harvard University

Explore the process of piecing together the lives of ordinary people from the past with this interactive site, which specifically studies the life of midwife Martha Ballard, and the research that went into the creation of the book and movie, *A Midwife's Tale*. Whether you are interested in the story of this particular woman, or want students to understand how to use and interpret primary and secondary sources materials for research, this site will prove to be both exciting and useful.

Math

[MacTutor History of Mathematics Archive](#) - Dr. John O'Connor and Prof. Edmund Robertson

You probably know who developed the Pythagorean Theorem, but did you know that he was once a priest in Egypt? An in-depth search of this award-winning site will yield interesting and significant information on the history of mathematics. With biographies on mathematicians' lives, quotes, stories about math in cultures from around the world and more, the information at this site will keep you digging for weeks.

Physics and Editors' Choice

Physlets - **Wolfgang Christian and Mario Belloni**

Looking for a visual, interactive, and technological way to teach about physics that will make it easier for students to understand even the most complicated concepts? Physlets is a powerful collection of Java applets that create simulations for most topics in physics. Envelope-pushing programming, giving these applets unparalleled breadth and flexibility, makes Physlets a truly unique and engaging tool.

Psychology

Neuroscience for Kids - **Eric H. Chudler**

The three pounds of tissue that make up your brain control nearly every function in your body. Delve deep into the world of this incredible organ with this easy to understand and very entertaining web resource. A wide array of information about the nervous system and neuronal functioning is made easy to understand understood through detailed explanations and appealing presentation. This engaging site can be employed successfully by teachers at any level to instill in their students an appreciation for, and understanding of, neuroscience.

Teacher Education: Classic

K-6 Arts Lesson Plans - **Cris Guenter**

Integrate the arts into your students' elementary curriculum with the innovative and engaging lesson plans provided in this database. Containing field-tested lesson plans for teaching dance, drama/theater, music, and visual arts, this easy-to-navigate web site may be the perfect resource for any teacher, beginning or experienced, seeking to enrich the education of their students.

World Languages: Editors Choice

Ojalanda que llueva cafande - **Barbara Kuczun Nelson**

If you are looking for a Spanish language module that incorporates all language skills, reading, writing, listening and speaking, go no further. *Ojala que llueva cafe* provides the opportunity to teach your students how to listen to and speak Spanish. Rich, pedagogically-sound modules use multimedia to engage a variety of learning styles. The site also incorporates a real-world character, and will stimulate a deeper awareness of Dominican culture. With music, photography, and interactive exercises, *Ojala* can create a vibrant context for learning in your classroom.