ⓞ Classroom Connect®
Connected Newsletter™
The K-12 Guide to Technology & Data

fractions. Students use the concepts
numbers:

1.1 Read and write whole n

1.2 Order and compare
to two decimal places

1.3 Round whole number

Standards-Based
LEARNING

eBOOKS
Share digitized texts

A SENSE OF SCALE
Practical applications

TECH AND READING
Plan an individualized curriculum

Harcourt
Connected Learning

TABLE OF CONTENTS

December 2007/January 2008 · Volume 14 · Number 4

How to Subscribe or Connect with Us

Happy Holidays!

With the holidays upon us, most of us are feeling excited about some much needed time off, but we are also overwhelmed by the hustle and bustle of the season. Many of us will also take a moment to reflect on the past months and think about what we want for the upcoming year. In the classroom, the ultimate goals remain the same: We want students to be successful and their academic achievement to continue. Of course, this is easier said than done. If tests, assessment, and AYPs are a big part of your day-to-day life, we have just the solutions for you.
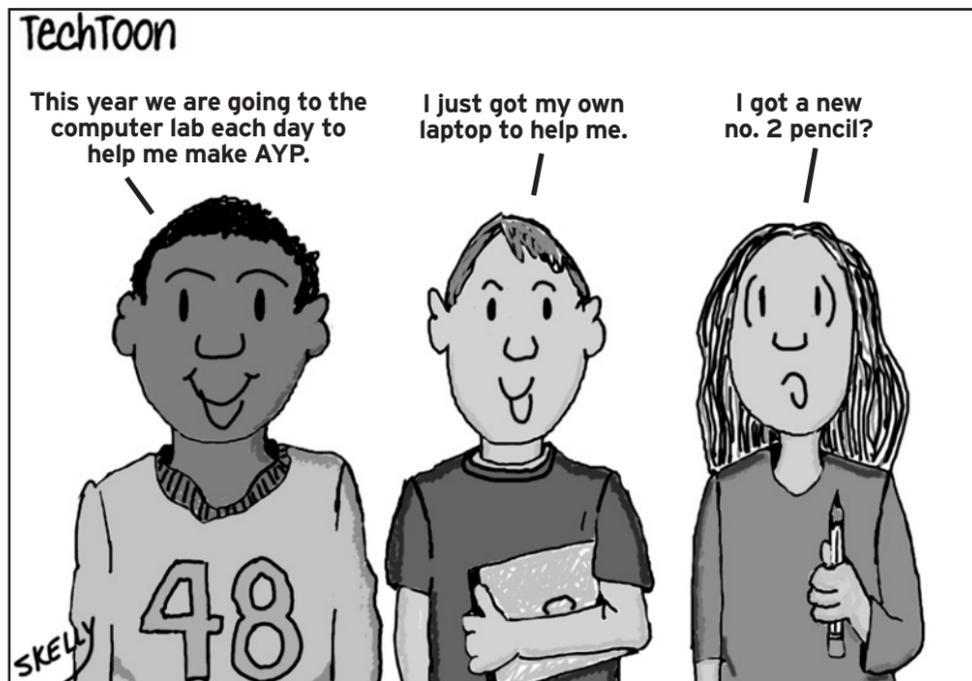
Our cover story **Standards-Based Learning** speaks directly to helping students achieve. Harry Tuttle offers advice and tips for setting up a successful program. Also in this issue, Sharon Wheeler writes **Using Technology using to Build a Balanced Reading Program**. You won't want to miss out on these wonderful tools and resources.

You may also be interested in *DataDirector™*, our customizable data warehouse and assessment management system. To find out more visit, **www.harcourtcl.com**!

Here's to a bright new year!

Paige

Paige Meredith
Executive Editor

TechToon

This year we are going to the computer lab each day to help me make AYP.

I just got my own laptop to help me.

I got a new no. 2 pencil?

SKELLY

Becta Curriculum
Grades K–12

Collaborate with professionals and maximize the effectiveness of integrating technology in the classroom. Becta provides an impressive collection of curriculum materials for design, business studies, citizenship, technology, English, geography, history, science, mathematics, foreign language, physical education, and religious education. One example is the lesson Using Podcasting to Support Language and Communication, which gives students practice with verbal and communication skills using an iPod. In addition, there are high school lessons to use with interactive whiteboards.
schools.becta.org.uk/index.php?section=cu

CyberSmart Lesson Plans
Grades K–8

CyberSmart covers Internet safety, manners, advertising, research, and technology. Some activities can be completed online while others, such as those on computer ethics and computer care, can be downloaded. Lessons include the Nuts and Bolts of Searching, Private Identity Information, Respecting the Law, Understand Your Acceptable Use Policy, and Evaluating Web Sites.
www.cybersmartcurriculum.org/lesson_plans/

Partners Against Hate
Grades K–12

This joint project was developed by the Anti-Defamation League, the Leadership Conference on Civil Rights Education Fund, and the Center for the Prevention of Hate Violence. Its purpose is to provide students with strategies to prevent a culture of hate. Downloadable guides feature discussions and activities about the causes and effects of prejudice and bias-motivated behavior. Create a peer leadership program or investigate hate crimes on the Internet. Click Promising Programs for a state database of "innovative programs aiming to confront the bigotry and discrimination that pose significant threats to the full participation of all Americans in a democratic society."
www.partnersagainsthate.org/educators/index.html

Physics Classroom
Grades 9–12
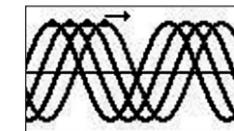
Sir Isaac Newton was born on January 4, 1643. Physics students can commemorate his birthday with an exploration of Newton's Laws of Motion. High school physics teacher Tom Henderson compiled detailed information and created quizzes for his students. Click Physics Tutorial and then Newton's Laws for four dynamic lessons. Other tutorial topics include vectors, momentum, waves, reflection, and refraction. To visualize major physics concepts, Multimedia Physics Studio features clever animations. In Physics Help, students use interactive graphs, identify vector directions, and study types of forces.
www.physicsclassroom.com/

Wright Brothers Lesson Plans
Grades K–12

On December 17, 1903, the Wright Brothers made four brief flights in the first powered aircraft. The National Air and Space Museum (part of the Smithsonian Institution) offers an excellent exhibit in three parts: Who Were Wilbur and Orville, Inventing a Flying Machine, and The Aerial Age Begins. Locate the lesson plan for your grade level: Airplane Anatomy, Biography Timeline, or Reconstructing History. Students will like the primary sources, interactive experiments, animations, and the electronic field trip.
www.nasm.si.edu/wrightbrothers/classroomActivities/lesson_plans.html

Microsoft: Free Templates for Home, Work, and Play
Grades K–12

Microsoft provides helpful templates for teachers and students. Browse the extensive list for quick Word, Excel, and PowerPoint downloads. You'll find calendars, flyers, greeting cards, classroom newsletters, homework planners, stationery, journals, quizzes, tests, and stickers. There are outlines for school reports, equipment sign-out sheets, meeting requests, scorecards, banners, and flashcards for math and reading. Print conference records, attendance forms, field trip permission slips, seating charts, bookmarks, posters, and games. Provide feedback to other users by giving five stars to your favorite templates.
office.microsoft.com/en-us/templates/default.aspx

Live Links
If you would like a PDF containing all of the live URLs from this Newsletter, send an email to **links@classroom.com**

by Emily Beck
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Standards-Based Learning:
Helping Students Achieve

N o Child Left Behind has created an accountability movement with standards-based learning at its center. Standards-based learning focuses on modifying instruction and differentiating groupings within the class to help each student achieve the components of a standard. Standards-based learning is a broad term because standards differ from state to state.

A few state standards are specific in terms of student learning but most are very general. For example, when teachers list a series of English Language Arts (ELA) standards such as ELA 1, ELA 3, and ELA 4 next to the activities they are doing, these references are too vague to really define what students are expected to know. Further, the New York State English Language Arts Standard 1 states "Students will read, write, listen, and speak for information and understanding. As listeners and readers, students will collect data, facts, ideas; discover relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language to acquire, interpret, apply, and transmit information" (New York State Education Department, n.d.). Without knowing precisely which aspect of the standard the students are to learn, the classroom activities and assessments have little merit and, therefore, students cannot be prepared for the state assessments.

This article explains how to develop a standards-based curriculum that will be the most beneficial for teaching and assessing your students.

Is Your Curriculum Standards-Based?

How do teachers know if their school's curriculum is standards-based? Some schools have taken their existing curriculum and assigned standards-based numbers to it. However, standards-based learning is based on students successfully learning the standards, not on covering the textbook-based curriculum. Perhaps the most dramatic difference is in the area of assessment. All assessments are created before the unit is taught and each assessment focuses on specific parts of the standards. Students know exactly what is expected of them in terms of the standards. They know what will be tested on any standards-based assessments. They know that they will be assessed frequently on these critical learning aspects. The feedback on each assessment goes far beyond a grade or rating. It includes formative individualized statements that suggest specific techniques so each student can advance in the standard. Both teachers and students are able to see student progress at any given time. In a standards-based school, teachers in a particular grade level and subject area share common lessons and common assessments. They discuss what they can do to improve the progress of each student in the standards (Reif, 2004).

Identifying Specific Standards

Once a school decides to become standards-based, educators have to identify which standards (and which components of each standard) they will teach. For each subject area, the principal reviews the state assessment so that teachers can identify the specific standard components. Those standard components are critical for the school to adopt. The principal then reviews the state standards for that subject area and has the faculty discuss which aspects of each standard they will focus on. The teachers might also use Bloom's Taxonomy to determine the highest level of thinking required for the state assessment.

After the discussion, the principal sends a summary email to the staff. In subsequent faculty meetings and through departmental and grade-level blogs, teachers identify what each standard component looks like in the classroom and how it will be assessed. If each teacher makes his or her own standards, then there is no coherent curriculum. It is critical that a department or grade-level staff make decisions together. Working in a collaborative manner, teachers must analyze and understand the components in each standard. If done well, they can help students achieve those components.

> It is **critical** that a department or grade-level staff make decisions **together.**

After educators agree on what the students need to know, they must identify the various levels of performance of the standard, such as beginning, progressing, proficient, or above proficient. A major part of this expectation is the amount of higher-level thinking involved in the standard component. When teachers share examples through blogs, and they compare each other's expectations, they will all come to have the same expectations of what proficient means for each standard component for their grade level.

Curriculum and Assessment Mapping

Educators must complete a curriculum mapping in which they indicate the general time that it will take to reach each standard component, as well as the order in which they will do each component. As they construct the curriculum mapping, they fully acknowledge that the ultimate goal is the students' *achievement* of the standard component.

Along with curriculum mapping, teachers should include an assessment mapping that indicates when and how often each standard component is assessed. This is especially important because standard components need to be measured over time in order to see growth. For example, students will need to conduct many science experiments in order to develop knowledge of the scientific process.

Teachers may need to reword their lesson plans so that the standards (not the activity) are the purpose of each class. Teachers should write their general content goals for the day in terms of the standard. Instead of "study the stream," science teachers write, "All students will explain how parts of an ecosystem are related and how they interact. Standard III.5" (Tuttle, 2007). They list what standards-based learning the students will do. Then they write "Students will identify three aspects of the stream (biological, physical, and chemical)

> Teachers should write their **general content goals** for the day **in terms of the standard.**

and how each can be measured; analyze the stream for each aspect; and evaluate the health of the stream by examining the relationship of the three aspects." These details define the components of the standard.

Activities Must Demonstrate the Standard

Before the actual instruction, teachers must make sure that all of the activities demonstrate the standard component. If they simply use last year's weather unit activities, they may be focused on a science topic instead of the science standard. Teachers should refocus the activities to concentrate on the standard. They will verify that each activity leads students up to the level of thinking required for the standard and state assessment so that the students can perform at the highest required level. It should be noted that although many textbooks are standards referenced, they may not focus on the exact standard components that the school or department has selected (Tuttle, 2007). Likewise, the textbook activities may not take the students up through the necessary thinking levels. In a similar manner, if teachers find classroom materials on the Internet, they may encounter activities that have no standards reference or only generally defined standards. In addition, the activity may not follow through on the standard.

Collectively, teachers find exemplars of the standard component that they can model for the students. They may have examples from past years that demonstrate the higher level of thinking required for this standard. If there are no past examples that focus specifically on the standard's component, teachers create their own. An advantage of teachers creating the exemplar is that they can verify all of the steps and skills required to be successful in the standard. Teachers can put these exemplars into a PowerPoint, electronic slide show, or podcast that can be made available for viewing at any time over the Internet. For each exemplar, they can include written or oral comments.

Introducing a Unit

As the teachers introduce a unit, they talk about the standard instead of the medium for the unit. Rather than saying "We are going to spend the next three weeks reading *Don Quixote*," standards-based English teachers say, "We will be developing your skills in compare and contrast, which is an important part of English Standard Three: Critical Analysis. By the end of this unit, you will be able to compare and contrast using the different themes in the novel *Don Quixote*." Also, teachers post the selected standards and their specific components in the room, on the class website or blog, and make sure that students have printed copies of the standards.

Teachers refer to these standard components as they do each day's activities. When teachers list the daily agenda, they list the standard component and not the topic. When social studies

eBooks

teachers write the daily agenda of "Finish reading Chapter 2 in the textbook and answer the questions," students do not know what the teachers expect them to learn. On the other hand, when teachers write a standards-based agenda, "Contrast pre-Revolutionary life to post-Revolutionary life in five ways in a concept map on your laptop," students know exactly what is expected of them.

One way to focus on the standard is for the teachers to label the precise standard and critical component on the curriculum covered in class. They can easily copy it from their word processor to in-class work, homework, projects, and assessments. Students can read the full text of the standard with the critical component that they are doing in bold print, such as "Scientific Inquiry: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions." Teachers focus on the standards when they use standards-based language in the classroom as they identify the sub-skills needed for the standard components. When standards-based math teachers ask their students what they are learning today, they do not expect to hear that students are doing math problems. They expect to hear, "We are learning the geometric concept of measuring objects."

Embedding Assessments

When teachers end each class with a review and an affirmation of the major concepts for the standard, they help students realize how much progress they have made each day and pinpoint what else they need to learn. Likewise, when the teachers give assessments throughout the unit and throughout the year, the assessments focus solely on the standard component. As more of the lessons become standards-based, the teacher embeds more assessments within normal classroom activities. Teachers take observational notes, use checklists, and employ a rubric to assess students. As they walk around the class and observe students at work, teachers use their tablet computer, PDA, or other portable device to record the information. Later, they analyze the progress of each student over time on the specific standard component and note what they can do to help students progress.

Because teachers work collaboratively to select standards and components, create assessments, and find resources, they support each other. They observe each other's classes to learn how effective the activities are in helping students achieve the standards. They use blogs to share their findings so that the team can modify instruction when a certain activity does not help move students closer to achieving the standard. Teachers collectively look at the class results of an assessment within the unit and throughout the year. They may find that some students need to be re-taught the material and, as a team, they can create activities to help those students be successful. They can also create enrichment activities for those students who achieve the proficient rating.

Standards-Based Learning and Achievement

In conclusion, research shows that students in standards-based schools do well on state and school assessment of the selected standards. Both teachers and students know what is required for proficiency in the standard. Through standards-based learning, educators can confidently assess student achievement.

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New York State Education Department (n.d.). English Language Arts. Retrieved August 2007 from **www.emsc. nysed.gov/ciai/ela/elastandards/elamap.html**.

Reif, R.J. (2004). *Science Standards, Implementation and Assessment*. Retrieved August 2007 from **www.nmlites. org/standards/documents/espanola-presentation-04-08-18.ppt**.

Tuttle, H.G. (2007). *Science Assessment and Technology from a Major Textbook Company*. Retrieved August 2007 from **eduwithtechn.wordpress.com/2007/07/12/science-assessment-and-technology-from-a-major-textbook-company/**.

Tuttle, H.G. (2007). *TechLearning: Hands-On Digital Tech*. Retrieved August 2007 from **www.techlearning.com/showArticle.php?articleID=196604460**.

by Harry Grover Tuttle, Ed.D., Consultant
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With the advent of new technologies, teachers face a tough challenge. Not only are they required to teach the everyday curriculum, but they are also being told to make sure they prepare their students for the twenty-first century workplace and the technological expectations that come with it. At many schools this is a challenge, as many students have to share computers and the wait times for computer labs may take days.

For teachers who are having a difficult time infusing technology into their curriculum, eBooks are a viable alternative. eBooks are digitized versions of any printed material. Any book, article, reference material, or document that has been published in paper form can now be changed into a digital format. Digital versions of these paper materials, once downloaded from the Internet, can then be sent to students' PDAs (Personal Digital Assistants), posted on a teacher's personal website, or projected digitally onto a screen in the classroom for use in whole-group instruction.

Benefits of eBooks

The use of eBooks in classrooms is being piloted in schools throughout the country. In many of these schools, teachers download the eBook version of the book or document and then send it to their students' PDAs. Using the software available on most PDAs and computers, the students can then change the text size or color to fit their own reading styles. Students can also highlight and annotate the text. This is especially useful for emerging readers or students with reading disabilities.

Numerous studies have shown that this use of eBooks is not only beneficial to many students' reading comprehension, but also that students are better prepared for what will be expected of them in today's work force. Much of the information adults are expected to process in the workplace is in digital form. Using eBooks teaches students the skills they will need to be able to access information and manipulate it to make the best sense for their own reading styles.

Several school districts now have done away with heavy, traditional textbooks and have instead opted to use eBooks. Textbook companies can now provide digital copies of their titles to any school that needs them. Each student is issued a PDA and the textbooks for all of their classes are sent to them for use throughout the year. In one handheld machine, the student's entire year's worth of curriculum may be stored. This has obvious benefits for the students. They no longer have to lug heavy backpacks to school, and they have access to all of their textbooks at the touch of a button.

Another benefit is that schools no longer have to purchase new sets of textbooks every time there is an update. For example, if a district has invested a large sum in history books, it usually needs to buy newer versions a few years later since the content has changed and been updated. With the use of eBooks, however, the textbook publisher now can send the updated version of the book digitally, the school can send it to all of the students, and the need to invest in a new set of books is avoided.

Getting Started

Many sites offer free downloads of books and other materials. Teachers can download everything from classic novels and plays to works of nonfiction or reference materials for use in their classrooms. Other sites offer downloads of copyrighted material for a fee. You will find a section of resources at the end of this article to help you get started.

Once you have found an eBook that suits your needs, you need to think about how to give your students access to it. Even if your school cannot give every student a PDA, there are valuable ways that you can use eBooks in your classroom:

- If you have a digital projector attached to a classroom computer or laptop, you can project an eBook on a whiteboard so the whole class can read along with you. You can highlight important passages or vocabulary, write notes on the text or in the margins, and manipulate the font size and color for easier reading.
- You can change an eBook into PDF format, and then post it on your web page. This way, students can access the book from home and read it at their own pace. They may print out any pages that are important and bring them to class the next day for activities or discussion.
- If your students have Internet access at home, you can also suggest titles for them to download to their home computers.
- Contact your textbook publisher and ask them about using their materials in eBook format. If PDAs are not available, some companies offer students access to textbooks online where they can utilize highlighting and annotating features.

Web Resources
Project Gutenberg
www.gutenberg.net

Bartleby.com
www.bartleby.com

The Online Books Page
www.digital.library.upenn.edu/books

eBooks.com
www.ebooks.com

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This Month: Pets

Because they provide friendship and assistance to people, pets are often called companion animals. In return for that companionship, pets depend on their owners for their own physical and mental well-being. Chances are many of your students own a pet. Use these sites to help them realize the lifelong responsibilities of being caring pet owners.

Pets at Home

This pet store chain uses the Web to promote responsible pet ownership. The home page covers dogs, cats, aquatics, birds, and small animals. Each pet has a page of advice on care. The small animals section, for example, contains information on rabbits, ferrets, chinchillas, hamsters, gerbils, and guinea pigs. Read the pros and cons of keeping a small animal as a pet and access brochures on their care. Children can also learn the proper way to play with a pet. Adobe Acrobat Reader is required for some resources.
www.petsathome.co.uk

Society for the Prevention of Cruelty to Animals (SPCA)

The mission of this international organization is to raise awareness of animal abuse and to foster good pet-parenting policies. Tabs on the home page lead to resources on pet health, training, grooming, and how to become an SPCA volunteer. Students can also read short stories about some of the many animals that have been removed from abusive situations and given safe and caring homes. The site's sponsors feature good information on topics such as breeds of dogs, identification tags, and pet health.
www.spca.com

Growing Up With Pets

This educational program is designed to foster strong and healthy relationships between children and pets. Parents who are considering getting a pet, as well as pet owners who are expecting a child, will find well-rounded and comprehensive resources. From the sidebar menu choose Just for Kids and download simple rules that teach children how to be responsible pet owners. Also included are pet safety tips and an activity booklet. Adobe Acrobat reader is required for some resources.
www.growingupwithpets.com/index2.shtml

Pets and Disasters

When natural disasters strike, pets depend on their owners for their care and safety. According to FEMA, pets must be considered as part of any family disaster preparedness plan. This site presents the basic steps pet owners need to take in case there is a home or community emergency. Children can learn what do for birds and reptiles, what to include in a pet disaster kit, and how to prepare a pet disaster plan. Students can view photos of successful animal rescues and read about dogs who have become genuine heroes in the rescue of disaster victims.
www.fema.gov/kids/pets.htm

PetPlace.com

With over a million visitors per month, PetPlace.com describes itself as the "definitive Web destination for pet crazy people." Supported by veterinary specialists, this site has over 10,000 articles on pet health, training, and care for cats and dogs. The animal profiles can help prospective pet owners decide on the right breed of cat or dog for their family. The site includes interesting articles on pet names, behaviors, emergency preparedness, training tips, pets in the news, pet care trends, and hidden pet expenses.
www.petplace.com

Additional Resources

Responsible Pet Ownership Program
www.pets.info.vic.gov.au

The Humane Society of the United States
www.hsus.org

PetPromise
www.petpromise.org/childrenpets.shtml

American Veterinary Medical Association
www.avma.org/careforanimals/animatedjourneys/petselection/petselectionfl.asp

American Kennel Club
www.akc.org

Pets: Activities for Elementary School Students

Pets provide love, companionship, and fulfilling relationships. It has been proven that kids who learn to care for an animal early in life grow up to become more caring individuals. For parents, this process begins with selecting the right pet and then ensuring that their child provides continuing care for the pet's many needs. It also means teaching children how to deal with the loss of a pet or discouraging them from keeping a wild animal as a pet. Students can learn more about pets and the responsibilities of caring for them with these activities.

1 — Pet Care

FOCUS
How should I select and care for a pet?

OBJECTIVES
- Determine which pet is best for a particular child/family.
- Identify how to meet the needs of a pet.

American Veterinary Medical Association
www.avma.org/careforanimals/animatedjourneys/petselection/**pet**selectionfl.asp
PAWS Kids
www.pawskids.org/pets/pets/who_is_the_best_animal_for_you.html
How to Choose the Right Pet for Your Child
www.all4kidsuk.com/childrens_pets_dogs_cats_guinea_pigs.help.shtml
Are You Ready to Own a Dog?
www.fda.gov/oc/opacom/kids/html/dog_test.htm

2 — Safety

FOCUS
How do I keep myself and my pet safe?

OBJECTIVES
- Identify the dangers of having certain animals as pets.
- List ways to live safely with a pet.

How to Stay Safe Around Animals
www.kidshealth.org/kid/watch/house/animals.html
Pet Safety
www.fda.gov/oc/opacom/kids/html/safe_home.htm
Kids and Pets
www.homevet.com/petcare/kidspets.html
Pet Care
www.pawskids.org/pets/pet_care

3 — Grieving

FOCUS
How do I handle the death of my pet?

OBJECTIVES
- Learn the role of a parent in dealing with the death of a family pet.
- Consider ways to help children who have lost a pet.

My Pet Died: How Can I Feel Better?
www.kidshealth.org/kid/feeling/thought/pet_death.html
When a Pet Dies
www.caringtogether.com/pettales/deathofpet.html
Saying Farewell to Your Pet
home.ivillage.com/pets/cats/0,,n902,00.html

4 — Travel

FOCUS
What must I do when traveling with a pet?

OBJECTIVES
- List the requirements for traveling with a pet by air or in the family car.
- Know the restrictions often placed on pets at vacation destinations.

Animal Health
www.avma.org/communications/brochures/traveling/traveling_brochure.asp
Tips on Traveling with Your Pets
www.growingupwithpets.com/tips/en/topic_3.shtml
Traveling with Your Dog
dogs.about.com/cs/travel/a/aa072402a.htm

5 — Wild Animals

FOCUS
Do wild animals make good pets?

OBJECTIVES
- Suggest why wild animals do not make good pets.
- Identify the steps to follow after finding an injured wild animal.

Should Wild Animals Be Kept As Pets?
www.hsus.org/pets/issues_affecting_our_pets/should_wild_animals_be_kept_as_pets.html
Wild Animals as Pets
cfhs.ca/wild/wild_animals_as_pets/
Why Wild Animals Don't Make Good Pets
www.aza.org/ForEveryone/NotGoodPets/
Wild Animals as Pets?
www.tc.umn.edu/~devo0028/wildpets.htm

by Jim Cornish · Fifth Grade Teacher, Gander Academy, Newfoundland, Canada · jim.cornish@warp.nfld.net

DECEMBER 2007

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
3 Soil How long does it take to form one inch of topsoil? www.epa.gov/gmpo/edresources/soil.html	**4 Kit Carson** What was this soldier's role in the Long Walk of 1864? www.pbs.org/weta/thewest/people/a_c/carson.htm	**5 Phillis Wheatley** What book did this slave write? www.lkwdpl.org/wihohio/whea-phi.htm	**6 Niger** What is this country's official language? go.hrw.com/atlas/norm_htm/niger.htm	**7 Pearl Harbor** Which memorial commemorates the start of U.S. involvement in WWII? www.nps.gov/usar/
10 Red Cloud To which tribe did this Native American belong? www.nativeamericans.com/RedCloud.htm	**11 Indiana** Which two plants are emblems of this state? www.statelib.lib.in.us/www/ihb/emblems/embflower.html	**12 Vancouver** What event will this city host in 2010? www.vancouver2010.com/en	**13 Clara Barton** Why did this nurse set up the Bureau of Records? www.galegroup.com/free_resources/whm/bio/barton_c.htm	**14 South Pole** Who led the first successful expedition to this location? www.south-pole.com/p0000101.htm

Holiday Break

JANUARY 2008

	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Visit us online for this month's live link calendar—perfect for a computer lab, classroom, or media center activity! corporate.classroom.com/newsletter.html	**1 Meerkats** What do these desert animals eat? itech.pjc.edu/sctag/Meerkat/meerkat1.HTM	**2 Aztec Calendar Stone** What appears in the center of the stone? encarta.msn.com/media_461549283/Aztec_Calendar_Stone.html	**3 Lucretia Mott** What event did this activist organize in 1837? www.anb.org/articles/15/15-00494.html	**4 Isaac Newton** In what book did this scientist publish his work on gravity? www.bbc.co.uk/history/historic_figures/newton_isaac.shtml
7 New Mexico Who led the first Spanish expedition into this region? www.newmexico.org/go/loc/about/page/about-history.html	**8 Capitol Reef National Park** What are *waterpockets*? www.nps.gov/care/naturescience/index.htm	**9 Carrie Chapman Catt** For which amendment did this activist campaign? www.catt.org/ccabout.html	**10 United Nations** How many countries were represented in 1946? www.un.org/Overview/milesto4.htm	**11 Soybeans** How are these legumes used in newspapers? oklahoma4h.okstate.edu/aitc/lessons/extras/facts/soybean.html
14 Radium Who discovered this element? www.epa.gov/radiation/radionuclides/radium.htm	**15 Martin Luther King, Jr.** How many days did the 1955 bus boycott last? nobelprize.org/nobel_prizes/peace/laureates/1964/king-bio.html	**16 The Louisiana Purchase** How much money was paid for this land? www.monticello.org/jefferson/lewisandclark/louisiana.html	**17 Benjamin Franklin** Which organizations did this statesman form? www.pbs.org/benfranklin/l3_citizen_networker.html	**18 Opals** Where are most of these gemstones mined? www.gemstone.org/gem-by-gem/english/opal.html
21 Aloe Vera How did ancient Egyptians use this plant? nccam.nih.gov/health/aloevera/	**22 Cheetahs** When do these animals hunt? www.honoluluzoo.org/cheetah.htm	**23 Mary Lou Retton** How many medals did this gymnast win in the 1984 Olympics? www.marylouretton.com/new_site_biography.htm	**24 Israel** What is this country's currency called? embassyofisrael.org/kids/index.html	**25 Bessie Coleman** Where did this African-American aviator earn her pilot's license? www.bessiecoleman.com/
28 Snow Which U.S. city has the most snowfall? nsidc.org/snow/facts.html	**29 New Jersey** What is this state's official flower? www.state.nj.us/nj/about/facts/factssymbols.html	**30 Guide Dogs** Who was the first American to use a seeing eye dog? www.seeingeye.org/GuidedTour.asp?sc=hs	**31 Project Mercury** Which animal flew on a test flight? www.centennialofflight.gov/essay/SPACEFLIGHT/Mercury/SP17.htm	

A Sense of Scale

The idea of scale is fundamental to so many aspects of daily life that it can easily pass unnoticed. Whether you are reading a map, looking at an architect's mock-up of an office building, or admiring a model railroad, proportionality and scale are the underlying concepts that allow you to magnify things that are small and shrink things that are large.

Despite the fact that we are surrounded by applications of scale, students often lack an intuitive understanding of the concept. They may be able to perform calculations when working with similar triangles, but they run into difficulty when it comes to practical applications such as interpreting a map with a scale of 1 cm:5 km. Here are some online resources that give students a chance to see the concept of scale in action.

Universcale
This unusual site from Nikon is one of the true gems of the Web. You might consider using it as an introduction to lessons on scale, similarity, or scientific notation. Invite students to explore the site on their own and discover for themselves how to navigate through it. Ask them to think about how the site is organized and have them discuss the meaning of the background grid that expands and contracts from page to page. You could have students return to the site after they've learned the relevant mathematics and describe what they see using their newly-acquired vocabulary.
Universcale
www.nikon.co.jp/main/eng/feelnikon/discovery/universcale

Zooming In and Zooming Out
If the Universcale site inspires students to learn more about scale, the three sites listed below are excellent destinations for the next stop on the tour. All three sites are based on the idea of zooming in and zooming out by factors of ten. For example, the site from NOVA presents an image of an apple. Ask students how many times they have to zoom in so that they can see a strand of the apple's DNA. Ask them how to write this number in scientific notation. They can use the websites to find two other objects that are related by the same scale factor.
NOVA: The Elegant Universe
www.pbs.org/wgbh/nova/elegant/scale.html
Secret Worlds: The Universe Within
micro.magnet.fsu.edu/primer/java/scienceopticsu/powersof10
Powers of Ten
www.powersof10.com

Exploring Map Scales
The mapping tool from Google may be a great resource for getting directions or planning a road trip, but it is also a powerful learning tool. After accessing the site, direct students' attention to the scale of the default map, which is located in the lower left-hand corner. Have them use the zoom tool at the upper left to zero in on their hometown. As they do so, ask students to describe what is happening to the scale of maps. Once students have had some experience with the maps, have them make predictions: *What scale would you expect to see on a map that shows the streets of our town? What scale would you expect to see on a map showing our town and our state capital?* Questions like these provide a natural link between mathematics and geography.
Google Maps
maps.google.com

Life in Miniature
A windmill slowly turns at the edge of a Dutch village, while a train pulls into a station and a plane prepares for takeoff. Now imagine the entire scene taking place right at your feet. This is the setting of Madurodam, one of the best-known miniature cities in the world and one of the most popular tourist attractions in the Netherlands. It's an exciting place to learn about scale and, fortunately, the park's website offers a detailed virtual visit. Have students find out which scale was used to build the models. Then have them calculate how large their school would be if it were included at the park. Finally, have them visit the other miniature parks listed below and ask them to compare the parks' scales. *At which park would the school building be the largest? At which park would it be the smallest?*
Madurodam
www.madurodam.nl
Bekonscot Model Village
www.bekonscot.com
Mini-Europe
www.minieurope.be

Scaling the Solar System
Creating a scale model of the solar system is a fun way to learn about scale and a perfect way to integrate science into the mathematics curriculum. Even the most basic questions can lead to interesting debates. For example, what is the best scale for a model of the solar system? If you choose a scale that is too small, the planet Mercury will be invisible. Choose a scale that is too large and the model will stretch across the country. The site called Build a Solar System helps address this dilemma by allowing the user to choose a size for the model of the sun; the site then calculates the corresponding diameters of the planets and the distances between them. The other sites provide a wealth of suggestions for bringing the solar system down to size.
Build a Solar System
www.exploratorium.edu/ronh/solar_system
The Thousand-Yard Model
www.noao.edu/education/peppercorn/pcmain.html
The Size and Distance of the Planets
cse.ssl.berkeley.edu/AtHomeAstronomy/activity_10.html
The Schoolyard Solar System
nssdc.gsfc.nasa.gov/planetary/education/schoolyard_ss/

by Joe Todaro
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Site of the Month!

Academy of Achievement
Grades 4–12

Founded in 1961, this nonprofit organization is dedicated to providing students a place to learn about the greatest thinkers of our time. The Achiever Gallery is an extension of the annual International Achievement Summit where students meet with world leaders. Search the gallery alphabetically by name or by area of expertise: arts, business, public service, science, or sports. Each person is described through images, audio, video, and interviews. Keys to Success explores the characteristics that helped these leaders reach their goals: passion, vision, preparation, courage, perseverance, and integrity. The teachers' section features lessons with student materials and a facilitation guide with projects, investigations, and correlating standards. Learn how to incorporate Achievement TV (interactive teleconferences) into your curriculum.
www.achievement.org/autodoc/pagegen/index.html

National Geographic: Remembering Pearl Harbor
Grades 6–12

On December 7, 1941, the Japanese launched a historic surprise attack on the U.S. Naval Base in Pearl Harbor. This tragic event brought the United States into World War II. Using photos, film footage, and first person accounts, National Geographic created a powerful multimedia map and timeline that examines the horrific bombings on the island of Oahu. For memorable primary sources, go to the Searchable Archive of Survivors' Stories. Go to Pearl Harbor Ships and Planes for a detailed chart of Japanese and U.S. military vessels and aircraft.
plasma.nationalgeographic.com/pearlharbor/

Dickinson Electronic Archives
Grades 9–12

DEA was created by a consortium of scholars seeking to make the life and works of Emily Dickinson available online. The Writings section contains scholarly articles and correspondence with the famed poet. Click Responses for written and audio opinions of Dickinson's work. Critical Resources offers fascinating close-up views of her actual handwritten manuscripts. Teaching with the Archives features The Classroom Electric, a compilation of links that focus on Dickinson's and fellow poet Walt Whitman's impact on American culture.
www.emilydickinson.org/

Discovering Antarctica
Grades K–12

Did you know Antarctica's ice sheets hold 70 percent of the world's fresh water? Explore the wonders of this frozen continent with this Webby-nominated site from the British Antarctic Survey and Royal Geographic Society. Begin at Imagining Antarctica and view an aerial video of the ice cliffs that form this island continent. Students can take the Wilderness Challenge to check their knowledge. What, Where, Why has an awesome interactive math activity called Sizing Up Antarctica. Journey South tells about the race to the pole and Roald Amundsen's 57-day expedition in 1911. Other topics include A Changing Climate, Beneath the Waves, Living There Today, Under Pressure, and The Antarctic Treaty.
www.discoveringantarctica.org.uk/

Ellis Island
Grades 6–12

Ellis Island's Immigration Station opened on January 1, 1892. On that first day, officials greeted 700 immigrants. Over the course of the first year, 450,000 people passed through Ellis Island on their way to what they hoped would be a better life in America. This virtual exhibit is hosted by the History Channel. Begin the tour with the timeline. Then visit Gateway for archival images and interesting descriptions of the Great Hall, Stairs of Separation, medical exams, and dormitories.
www.history.com/minisites/ellisisland/

National Museums Liverpool
Grades 2–12

Developed in England, these entertaining, interactive journeys highlight art from all over the world. Explore World Cultures through masks and totems. Students can become Agents of Deterioration and try to figure out the forces that could destroy the museum's unique collection. Travel with a nineteenth century family to Australia. Sail on a sinking ship in Slaves' Stories. Take a guided tour of Egypt at the Nile File. In addition, learn how sundials work, study portraits, or play a matching game in Top Treasures.
www.liverpoolmuseums.org.uk/nof/

Australia: Lore of the Land
Grades 4–12

This companion site to the award-winning TV documentary *Lore of the Land* examines the relationship among indigenous and non-indigenous Australians. In Land Issues, explore an interactive map of the continent and study a timeline of historical events. In Experiences, read the biographies of five Australians with very different backgrounds and examine an integration timeline. Go to Understanding for a tour of Australia's beautiful coastline. Indigenous Cultures has interviews with songwriters of the Gunditjmara region of southern Australia. Their lyrics tell stories of their love for the land.
www.loreoftheland.com.au/

Make-a-Flake
Grades K–8

Here's a new twist to a favorite art project that also gives young students valuable practice using a mouse. Manipulate the virtual scissors to cut snowflake designs. Preview the snowflakes before saving to the gallery or email them to a friend. Older students can experiment and predict how certain cuts reveal different patterns. Snowflakes may also be printed and displayed. It's true: no two flakes are the same!
snowflakes.barkleyus.com/

George and Ira Gershwin
Grades 9–12

Ira Gershwin was born Ira Gershovitz on December 6, 1896 in New York City. Two years later, his brother George joined the family. In 1919, George's first hit song, *Swanee*, was performed by Al Jolson. The brothers' musical theater legacy includes Broadway shows such as *Porgy and Bess* and *Lady, Be Good*, as well as the films *Shall We Dance* and *Funny Face*. George also composed the popular orchestral pieces *Rhapsody in Blue* and *An American in Paris*. Click Jukebox and listen to their songs or download sheet music.
www.gershwin.com/

The Time of the Lincolns
Grades 6–12

On September 22, 1862, President Abraham Lincoln issued the Emancipation Proclamation. Introduce this document while students explore the companion website to the PBS documentary *Abraham and Mary Lincoln: A House Divided*. Go to Slavery and Freedom, Partisan Politics, or Americans at War for valuable insight into how our nation dealt with political issues in the nineteenth century. A Woman's World describes medical care during the Civil War and antebellum suffrage activists. As with all PBS sites, there is an excellent teacher's guide.
www.pbs.org/wgbh/amex/lincolns

Walt Disney Family Museum
Grades 2–12

What do students know about Walt Disney? They may mention theme parks, merchandise, and recent movies. The Disney Family Museum documents the extraordinary work of this talented man who began an entertainment empire. Students will be inspired as they listen to an audio biography. There are clips of his early work and interviews. Go to Masterworks to learn about the production of Disney's finest films. In addition, the Guide for Teachers offers cross-curricular activities.
disney.go.com/disneyatoz/familymuseum/index.html

Live Links
If you would like a PDF containing all of the live URLs from this Newsletter, send an email to links@classroom.com

by Emily Beck
Preschool Music and Middle School Math Teacher
ebeck512@gmail.com

To: Harcourt Connected Learning
From: Cynthia Lanius
Re: Fun Mathematics Lessons
Date: January 2008

Q: How does this site demonstrate math principles?
It's not just a page of lesson plans for teachers. There are sites that contain lots of lesson plans, and some are very good. But what I wanted to do was design instruction that is directed toward students with explanations, directions, and problem solving. When students sit down at the computer they can understand it.

Q: To what grade levels is it aimed?
Students at all levels (kindergarten to calculus) can use it. As I was doing this site, I had lots of email from teachers who teach the primary grades asking for content. So there's counting, fractions, and ratios, not taught from an algorithmic approach, but a conceptual approach. These are not tutorials. I'm trying to develop concepts.

As the Web became more popular, I hoped that kids would sit down, see this math site, and think about how cool it was instead of how they hated math. And I hoped they would also understand the concepts. I believe strongly in teaching math not to memorize strategies, but to make math make sense to students. In this way they can understand and learn math. It's not some mystery that they feel powerless to learn.

Q: How did this site begin?
I used to work as a math teacher at a high school in Houston. When I was still in the classroom I began to work on professional development at Rice University. I eventually took on more of a leadership role in that area.

The site wasn't part of my regular job. It was a labor of love for me to do this. In 1996 the Web was just becoming hot. That first summer I don't think any teacher we had in our professional development program had ever been on the Web. I thought the Web was a real hook and a real context for teachers to use technology in their teaching.

I had been asked to do a presentation on fractal geometry for my professional development work. When I went on the Web to look for resources, I was very disappointed. At that time I couldn't find anything designed for kids. So I put my presentation on the Web. The fractal geometry site was the first one I did, and that original page is still the most popular page.

Q: Describe some of your favorite pages on the site.
Some of my favorites are not necessarily the most popular ones, possibly because they need a bit more explanation. When I show them at workshops, teachers have told me how cool they are and that they will use them. They might not use them without some sort of background.

I love the Rectangle Pattern Challenges because I love the math behind it. It's based on counting colors of rectangles and noticing that things build in a particular patterned way. When kids are little, you can talk about counting squares of one color, and then ask if they know how many would be in the next rectangle. You can also use it in algebra, where students can write algebraic formulas describing the pattern changes. You could find the rate of change in calculus.

I also love the Visualizing an Infinite Series because it's such complicated math done so easily. I love the Pattern Block Fractions. This is something that's been very widely used because kids have such challenges with conceptualizing fractions. And, I love the Hot Tub exercise.

Q: The Hot Tub exercise shows a graph with points on it to demonstrate water levels and asks for kids to describe what happens. That's not exactly pure math, is it?
I would call that graph analysis. It's done with a creative twist. In order to do that problem, they have to understand that from point A to B on the graph, the water depth is increasing over time. Explaining it that way to children is boring. A better way is to tell students that it looks like somebody got in from B to C, because the slope of the line is suddenly higher. Therefore, the rate of change from B to C is higher than from A to B.

But teachers could also say that it shows a graph of a bank balance over time. There are lots of real-world contexts you could use, but the math is the same.

Q: Did you create all the pages?
Yes, but the applets were written by others. I don't know how to program in Java.

Q: What type of feedback have you received?
I decided the site was successful when I heard from university professors, people with Ph.D.s in math or physics, and from second graders telling me they liked it.

Fun Mathematics Lessons
math.rice.edu/~lanius/Lessons/

Cynthia Lanius <clanius@bellsouth.net> is now working as an independent consultant from her home in Kentucky.

by Mary Cupito
Assistant Professor of Journalism
Northern Kentucky University
cupito@fuse.net

Presidents: The Secret History
Grades 2–6

What would kids do if they were president of the United States? What qualities do they think a president should have? Uncover secrets about Rutherford B. Hayes's special talent in elementary school, William Henry Harrison's inaugural speech, and learn why Herbert Hoover never wanted towns to be named after him. Walk the campaign trail and view colorful and unique memorabilia, such as bow ties that tout Adlai Stevenson and lollipops with the catch phrase "I like Ike." Visit the teachers' and parents' page for thought-provoking discussion questions. Be sure to check out other fascinating sections of PBS's *WayBack* series.
pbskids.org/wayback/prez/index.html

Kids Commonwealth: Virginia
Grades 2–6

The history of Virginia began in 1607 with the founding of Jamestown, America's first permanent English settlement. This southern state is also the birthplace of eight U.S. presidents. Students can quickly link to the best resources that describe historical events, parks and attractions, and the lives of famous Virginians. View state maps and demographics. Click Symbols of the Commonwealth and download the convenient Virginia Fact Pack. Visit the state capitol in Richmond and find out about Governor Tim Kaine. Students can use the interactive Stickman Game and other quizzes to test their knowledge.
www.kidscommonwealth.virginia.gov/home/

Kids World Sports
Grades K–6

Do students need inspiration to get off the couch and get moving? Visit this online companion to the PBS series that introduces real athletes between the ages of 12 and 18 who are engaged in authentic, and sometimes extreme, sports. Read about 50 different sports, including mountain biking, kayaking, judo, figure skating, synchronized swimming, and even baton twirling! Find a list of required equipment, how to play, and learn the lingo associated with each sport. Students can generate discussions by emailing a photo or video e-cards to friends. In addition, try the games Snowboard Savage and Kayak Challenge.
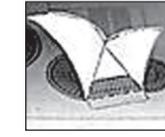pbskids.org/kws/

Paper Toys
Grades 4–8

As simple as its name suggests, Paper Toys is a compilation of free paper models. Students can examine intricate designs while constructing buildings and assembling cars. The detailed architectural reproductions include the Sydney Opera House, Wrigley Field, and the U.S. Capitol. There is also a *Tyrannosaurus Rex* and a Mississippi Riverboat. Models appear in black and white or color, and the pieces can be printed on standard-size paper. Enlarge the pieces with a photocopier for an even more impressive creation. Finally, provide students with plenty of craft supplies to enhance their projects.
www.papertoys.com/

Mama Mirabelle
Grades PreK–2

Gather with the baby animals of the savanna and watch movies with Mama Mirabelle, a warm and loving elephant. Friendly audio narration and music enliven the movies while they teach young children about animals and their habitats. To make a wild animal mobile, click Print and Color and cut out Bo, Max, Kip, Karla, and Mama. Then click More Fun and Games to play Photo Match, try the pantomime collage maker, or help Mr. Tumble find animals in the jungle.
www.bbc.co.uk/cbeebies/mamamirabelle/

SparkTop.org
Grades 4–8

This creative, safe site is for kids with learning difficulties. Developed by SchwabLearning.org, students can use the message board, SparkMail, SparkBlog, IM, or voicemail to connect with other LD kids with dyslexia or attention-deficit/ hyperactivity disorder (AD/HD). They can achieve success by completing games, contests, and interactive projects. Check out the Theme of the Week, Zack and Zoey's Totally Hidden Audio, DBTV (advice from Dr. Bart), or the Pet Gazette. The Teacher Resource Center has activities to help students accomplish their goals and find their hidden talents. Registration is free, but students do need an adult's permission to join.
www.sparktop.org

Live Links
If you would like a PDF containing all of the live URLs from this Newsletter, send an email to
links@classroom.com

by Cara Bafile
Educational Writer & Former
Kindergarten Teacher
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FEATURE STORY

Using Technology to Build a
Balanced Reading Program
Tools and strategies for success

In **No 'Best Way' to Teach Reading** (www.nea.org/reading/connorresearch07.html), the National Education Association agreed with the findings of Carol M. Connor, assistant professor at the Florida State University College of Education and a researcher with the Florida Center for Reading Research. Connor's report revealed "that lots of individualized instruction, combined with the use of diagnostic tools that help teachers match each child with the amounts and types of reading instruction that are most effective for him or her, is vastly preferable to the standard 'one size fits all' approach to reading education that is prevalent in many American elementary schools." Connor's study determined that even a balanced approach of blending whole language with phonics instruction may not be effective for every child.

Reading Resources for Planning and Teaching
For assistance in planning an individualized reading curriculum, the sites below highlight research data and teaching techniques that can help at-risk students gain skills and develop a passion for reading. The resources cover vocabulary instruction, text comprehension instruction, teacher preparation, and comprehension strategies. A Compact for Reading explains how parents can reinforce skills at home. Students can use the recommended fiction and nonfiction texts from The Literacy Web to practice comprehension skills at a variety of reading levels. In addition, help children find appropriate books with the Choices Booklists.
IRA: Standards for Reading Professionals
www.reading.org/resources/issues/reports/professional_standards.html
Reading Rockets: Techniques for Teaching Reading Effectively
www.readingrockets.org/teaching
Scholastic: Reading Resources Network
teacher.scholastic.com/reading/
NRP: Teaching Children to Read Summary Report
www.nationalreadingpanel.org/Publications/summary.htm
The 4-Blocks Literacy Model
www.teachers.net/4blocks/column.html
A Compact for Reading: School-Home Links
www.ed.gov/pubs/CompactforReading/index.html
The Literacy Web
www.literacy.uconn.edu/
Choices Booklists
www.reading.org/resources/tools/choices.html

Free Reading Assessment
Online assessment materials with no purchase required are limited. These practice tests may detect specific reading deficiencies and provide follow-up recommendations for remediation. The results can be compared with state and national standards as well as standardized achievement tests.

Online Practice Reading Tests
www.longman.com/ae/marketing/sfesl/practicereading.html
Reading Comprehension Tests
users.erols.com/interlac/testdir.htm
Reading Passages by Jim Cornish
www.stemnet.nf.ca/CITE/reading_passages.htm
National Right to Read Foundation: Reading Competency Test
www.nrrf.org/readtest.html

Phonics Favorites
The goal of phonics instruction is to teach students the relationship between written letters and spoken sounds. With these practice sites, they'll learn to automatically recognize familiar words and decode new words as they review vowels, contractions, suffixes, and high frequency words. Download the free sample books from Reading A–Z. In KidSource, Constance Weaver presents ways to help children develop phonics knowledge.
Reading Workshop: Phonics
www.manatee.k12.fl.us/sites/elementary/palmasola/phonpage.htm
BBC Words and Pictures: Phonics
www.bbc.co.uk/schools/wordsandpictures/phonics/index.shtml
Reading A-Z
www.readinga-z.com/
KidSource: Phonics in Whole Language Classrooms
www.kidsource.com/kidsource/content2/phonics.html

Vocabulary Development
Word knowledge is critical to comprehension. Although new vocabulary can be learned by using context clues while listening and reading, research shows that direct study is more efficient. Vocabulary acquisition involves using relevant words in reading, writing, and speaking. Introduce terms that address key concepts or ideas. In Elaborating Vocabulary Instruction, examine the five techniques used to select and teach new vocabulary. Learn to build a *clarifying table* to pre-teach vocabulary before using new words in the context of a lesson.
Vocabulary Acquisition Skills
www.glencoe.com/sec/teachingtoday/subject/vocab_acquisition.phtml
Literacy Matters: Vocabulary
www.literacymatters.org/content/readandwrite/vocab.htm
Teaching Vocabulary with Francie Alexander
content.scholastic.com/browse/article.jsp?id=4503
Vocabulary University
www.vocabulary.com/
Harcourt Vocabulary Power Station
www.harcourtschool.com/menus/preview/harcourt_language/vocab_power.html
Elaborating Vocabulary Instruction
www.ldonline.org/article/5759

Reading Comprehension
The **National Reading Panel** (reading.uoregon.edu/comp/comp_why.php) concluded that six cognitive strategies improved reading achievement:
• Question answering
• Comprehension monitoring
• Cooperative learning
• Graphic organizers
• Question generation
• Summarization
Test students' reading abilities and build comprehension skills with these sites. The goal is to prepare students to extend beyond surface details and learn to analyze, compare, evaluate, and interpret. The Graphic Organizers cover main idea, fact/opinion, making predictions, and cause/effect. Several of the sites have practice sheets that teach how to follow directions, predict outcomes, and summarize. In Guiding Principles for Teaching Comprehension, review the four stages that move students toward independent reading: teacher modeling, guided reading, independent practice, and application in real reading situations.
EduPlace: Graphic Organizers
www.eduplace.com/graphicorganizer/
Tools for Reading, Writing, and Thinking: Graphic Organizers
www.greece.k12.ny.us/instruction/ela/6-12/Tools/Index.htm
edHelper.com: Reading Comprehension
www.edhelper.com/ReadingComprehension.htm
Reading Workshop: Comprehension
www.manatee.k12.fl.us/sites/elementary/palmasola/rcompindex2.htm
Reading for Deep Comprehension
www.stenhouse.com/pdfs/DornSoffos0403%20pp13-26.pdf
ReadWriteThink: Student Materials Index
www.readwritethink.org/student_mat/index.asp
Guiding Principles for Teaching Comprehension
www.stenhouse.com/pdfs/0307ch01.pdf

Focusing on Fluency
Fluency is the ability to read accurately and quickly. Students who understand how to make connections between the text and their background knowledge become proficient readers. They can easily construct meaning because they automatically combine their skills in phonics, decoding, and vocabulary.

Reading aloud to students is important because it lets listeners hear a fluent reader. Children can increase their vocabulary and oral language skills, develop knowledge of the written language, and improve comprehension. Try shared reading using a picture book. It's a convenient way to point out key words and discuss the story's plot and characters. When teachers introduce a concept, strategy, or skill before starting to read, students participate in the reading process. They learn to read for enjoyment, to find information, and to read with fluency and expression.

Teachers can use these resources to improve fluency. Download flashcards for the 220 Dolch Sight Words that are used in 50 to 75 percent of student reading material. Frequently used nouns are presented on a separate 95-word list.
Fry's Readability Graph
school.discovery.com/schrockguide/fry/fry.pdf

Professor Garfield: Easy Readers
professorgarfield.org/parents_teachers/instructions/easyreaders.html
Learning Books: Dolch Sight Word Activities
www.learningbooks.net/xLPDolch.html
Dolch Kit
www.theschoolbell.com/Links/Dolch/Contents.html
Dolch Site Words
www.mrsperkins.com/dolch.htm

Reading Software and Web-based Programs
If your school district is developing a framework for literacy instruction, the popular programs listed below can help teachers manage time, materials, and assessment. Before making a purchase, check out eSchool News for software reviews. The Lexile Framework can be used to evaluate curriculum, based on each student's ability to comprehend the materials. Use the data to establish individualized instruction and assess learning.
eSchool News Best Reading Software: Readers' Choice Winners
www.eschoolnews.com/resources/surveys/editorial/rca/eSNOct06RCA.pdf
Lexile Framework for Reading
www.lexile.com/EntrancePageFlash.html?1
Waterford Early Reading Program
www.waterford.org/
National Reading Styles Institute
www.nrsi.com/
Scholastic: WiggleWorks
teacher.scholastic.com/products/wiggleworks/index.htm
The Phonics Game
www.coloring-page.net/parents/phonics.html
Success for All Foundation
www.successforall.net/

Build Skills with Interactive Reading Games
To round out your curriculum and supplement individualized reading instruction, be sure to include interactive games. Games help children achieve success and let them monitor their own progress.
Between the Lions: Word Games
pbskids.org/lions/games/
Clifford Interactive Storybooks: Phonics Fun
teacher.scholastic.com/clifford1/
Reading Games
www.adrianbruce.com/reading/games.htm
Reading Is Fundamental: Game Station
www.rif.org/readingplanet/gamestation/
Iknowthat.com: Language Arts
www.iknowthat.com/com
Reading Games
www.mrcpl.org/literacy/lessons/sight/index.html

by Sharon Wheeler
Harcourt Connected Learning Cybrarian
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HyperStudio Lesson: Life Cycle Animation
Grades 3–5

Introduction
In this lesson, students learn about life cycles. After researching an organism and drawing storyboards, they use HyperStudio to make frame animations that describe the life cycle of an animal or plant.

Objectives
- Use the Internet for research.
- Cite sources appropriately.
- Understand and illustrate life cycles of organisms.
- Use HyperStudio to create an animation.
- Use draw and paint tools.
- Use buttons to run the animation.

Time Estimate
Two 45-minute class periods

Procedure
1. Review the concept of a life cycle. As a class, create a storyboard of a frame animation of the butterfly life cycle.

2. Have students choose an organism. Provide print and online resources for research. Students should take notes on the different stages of their organism's life cycle and cite the sources for the information they collect.

3. To plan their frame animations, students draw storyboards on paper. (A frame animation is a series of pictures that, when viewed together, create a moving image.) The combination of drawings should show how the organism progresses through its life cycle. In order to create an effective animation, each frame should have the same background, same size objects, and show only small changes from one drawing to the next.

4. Have students draw their first frame on the first card. To make the second and subsequent cards, students need to copy the previous card or slide and use the draw and paint tools to make changes.

5. Students can create a button on each frame that advances to the next frame. They should also add cards at the end of their animations that include the sources they used. Remind students to save their work.

6. Students should preview their animations and make changes. If time allows, they can label the parts of the organism or add text to describe the action.

Assessment
Have students share their HyperStudio presentations with the class. *What did you learn from using HyperStudio? Is this software a good way to demonstrate a scientific concept? Why or why not? What other projects might use animations?*

Extension
Students can use HyperStudio to animate a book character or a movie plot. They can also highlight vacation activities or demonstrate a favorite sport.

Helpful Tips for Using HyperStudio
Share these guidelines with students to help them create successful presentations.

Add a Graphic Object
You can add images to a HyperStudio card. A graphic object sits on top of the background layer of a card in HyperStudio. Graphic objects can have actions like a button.

1. To add a graphic object, go to the Objects menu and choose Add a Graphic Object. At the Where do you want to get your graphic dialog, click the Disk File radio button. Click the OK button.
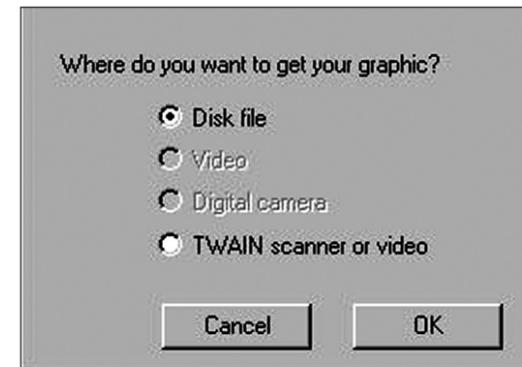
2. Navigate to an image file you want to use. Click the Show Preview check box to see a preview. Click the file to select it. Click the Open button.

3. At the Graphic Objects dialog, use the Square Selector Tool or the Lasso Tool to select a portion of the image. Click the OK button.

4. Your selection will now be floating in the middle of the HyperStudio card. Move your cursor over the image. When the cursor changes to four arrows, click and drag to move the object. Click outside of the graphic object to place the image on the card.

5. At the Graphic Appearance dialog, click the OK button.
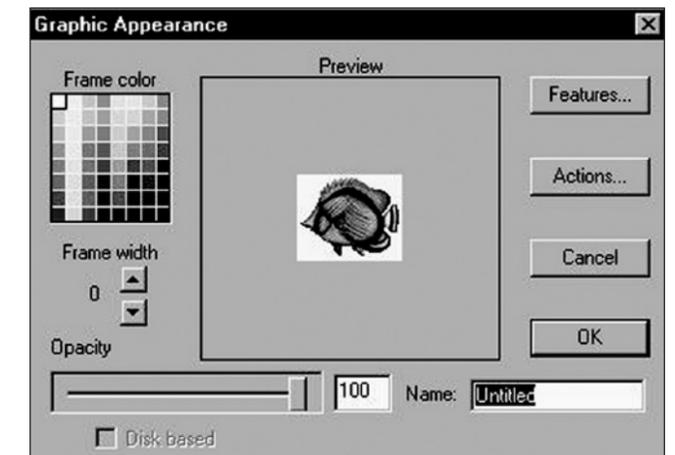
The software applications lesson and helpful tips are excerpts from Connected Tech, a Web-based instructional program from Harcourt Connected Learning that enables K–8 teachers to integrate critical technology skills. For a free trial, or to learn more about Connected Tech, visit **www.harcourtcl.com** *or call (800) 638-1639.*

GradeConnect

GradeConnect (www.gradeconnect.com) is a free Web-based gradebook program that is integrated with a robust course management system. Students and parents can track student progress and calculate grades at any time. The course management program provides pages to post assignments and announcements, a calendar, links for websites, an email system for effective communication, and a database to manage student textbooks.

GradeConnect is very easy to use because it was created by teachers. Presently, about 1,000 schools are using the program globally. GradeConnect can be used at all grade levels and it completely enhances the model of a technology-driven twenty-first century classroom.

Overview
- **Free** – The online program is free for teachers. Premium accounts are available for a small fee, but are not essential.
- **Secure** – Having an online program provides the teacher with access from school or home. The program uses the same technology that is used with credit cards. The servers are backed up daily with 24/7 monitoring to provide the utmost protection.
- **A Proven Record** – GradeConnect has been recognized by some of the leading organizations such as *The New York Times*, National Education Association (NEA), American Federation of Teachers (AFT), U.S. Department of Education, and the International Society for Technology in Education (ISTE).

Highlights for Teachers
- **Course Description** – Each course (classes are referred to as courses) has a section to post a short description. This is handy when many classes are offered.
- **Online Gradebook** – You can post all your grades for each assignment, test, or quiz with one of three grading methods. The spreadsheet-style format has excellent statistical functionality.
- **Post Assignments and Announcements** – Teachers can post homework assignments, projects, and announcements. These tools are great for students who are absent or for parents to check on their child's assignments.
- **Progress Reports** – Teachers can generate progress reports or failure warnings for individuals.
- **Automated Emails** – You can send emails to a single student, your entire class, all students in multiple classes, or to parents.
- **Records of Textbooks** – There is a mini-database section to keep track of all your student textbooks such as title or book condition. This eliminates unnecessary paperwork, generates a digital record, and reinforces the importance of keeping books in excellent condition.
- **Time Saver** – GradeConnect saves time by giving your students feedback that will eliminate questions if they are absent or on vacation.

Try the Demo
If you want to see the program in action, click the Demo Login tab on the home page. GradeConnect has set up the usernames and passwords specifically for this article, eliminating the need to pre-register. They are as follows:

Teacher	Username: *teacher*	Password: *teacher*
Student	Username: *student1*	Password: *student1* (change drop-down menu to student)
Parent	Username: *parent1*	Password: *parent1* (change drop-down menu to parent)

Getting Your Free Account
Click the Create Account link and then the Create a Teacher Account link. Select your state and fill in the appropriate information. If you do not have the School Code, email GradeConnect at **support@gradeconnect.com** for an alternate method of verification. **Note:** There is a small fee for access to parent accounts. Most parents use their student's username and password for login purposes.

Premium Teacher Account
Connected Newsletter readers can upgrade to a trial premium teacher account for six months. Simply set up your free account as described above, log in to your account, click the Your Account tab, and then click Membership. Read the important information on the page, enter the promotional code **classroomconnect34**, and submit. You will be upgraded to a premium account until June 30, 2008.

Parent Communication Is Key
Parents have access to their child's grades, homework assignments, due dates, failure warnings, and any other postings. This is vital for creating and maintaining a positive teacher-parent relationship. In addition, the email system provides a convenient and effective form of ongoing communication. Parents can connect from home, office, or anywhere to get a daily overview of their child's test grades, homework, and any other special assignments or important announcements.

Summary
GradeConnect is a great tool for teachers to maximize their grading system and manage their courses online while providing an effective form of communication for students and parents. Louis Osinski, President of GradeConnect states, "Teachers tell us since they started using GradeConnect they have more time to do what they really love doing, and that is teach."

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by Domenic A. Grignano
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Creative Communication
Online correspondence

Dedicated to promoting creative writing, this organization holds a poetry contest for K–12 students three times a year, with the winners sharing over $70,000 in prizes. Students may only submit one poem at a time, and it can be no longer than 21 lines of text. In addition to the prizes, specially selected poems will be published in a hard-bound anthology. The current deadline is April 8, 2008.

Subject Area: Language Arts
editor@poeticpower.com
www.poeticpower.com/Contest.htm

Timewitnesses
Online correspondence, online research

Despite the lengthy passage of time, many people who experienced the turbulent era of World War II are alive and well. This project seeks to record their stories. Study historic accounts of people who were schoolchildren living in Europe during the war. After reading these extraordinary tales, students can interview local senior citizens and record their wartime memories.

Subject Areas: Social Studies, Language Arts
tom.holloway@u3a.org.uk
timewitnesses.org/

Friendship Through Education
Online correspondence, online research

Launched in response to the terrorist attacks on September 11, 2001, this consortium of organizations helps educators and students facilitate respectful interactions among people. Find a variety of opportunities to communicate with schools from around the globe via letter-writing, online projects, or a students' exchange. The useful resources make this site well worth bookmarking.

Subject Areas: Multidisciplinary
friendship@us.iearn.org
www.friendshipthrougheducation.org

Fennoscandia 2008
Adventure learning, online correspondence, online research

Go North is a K–12 adventure learning organization dedicated to exploring the Arctic. In February 2008, they will be traveling through Fennoscandia. This unique region covers Finland, Sweden, and Norway. Meet the indigenous Saami people and learn about deforestation. Access an activity guide and encourage students to participate in expert chats, collaboration activities, and drawings for prizes. Registration is free.

Subject Areas: Science, Social Studies
info@polarhusky.com
www.polarhusky.com

by Christopher Mautner
Educational Writer & Editor
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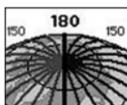
Latitude and Longitude
Grades 6–10

With a GPS (Global Positioning System), it's nearly impossible to make a wrong turn. This navigation system is made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense. Each GPS satellite broadcasts a signal that gives longitude and latitude coordinates. Students can investigate ways to find locations around the globe.

Learning Goals
- Complete an online tutorial.
- Convert decimal degrees to degrees, minutes, and seconds.
- Use longitude and latitude to find world cities.
- Find the longitude and latitude of world landmarks.
- Learn to use a GPS.

Activities
Longitude lines run north and south and measure distance from east to west. Latitude lines run east and west and measure distance from north to south. Introduce this geography skill with an online tutorial that includes a pretest and posttest.
Latitude and Longitude Tutorial
www.lakelandsd.com/tutorial/

The units of measurement for longitude and latitude are degrees, minutes, and seconds. However, these coordinates are often given in decimal form. Converting decimal degrees to degrees, minutes, and seconds requires some pencil and paper calculations or practice with a computer's built-in calculator.
Latitude and Longitude Menu
academic.brooklyn.cuny.edu/geology/leveson/core/linksa/latlong_menu.html
Definition of Latitude and Longitude
jwocky.gsfc.nasa.gov/teacher/latlonarchive.html
Convert Decimal Degrees
www.mass.gov/mgis/llcoord.htm
Degrees, Minutes, Seconds Calculator
www.satsig.net/degrees-minutes-seconds-calculator.htm
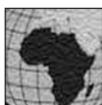
Where is the city of Bern? Ankara? Provide students with printed world maps and a numbered list of twenty cities. Have students use the Internet to find the latitude and longitude for each city. They can mark a city's location on their maps with a corresponding number from the list.
Latitude and Longitude Printable Maps
worldatlas.com/webimage/testmaps/latslongs.htm
Find Latitude and Longitude
www.mapsofworld.com/utilities/world-latitude-longitude.htm

Give students another list of cities and ask partners to work together at the computer. Estimate where the cities might be and then enter the latitude and longitude according to the directions on FlashIMap.
FlashIMap: Plot Longitude and Latitude
www.flashimap.com/job_request/geographic_coordinate_map/

Install Google Earth and 'fly' to any continent. Have each student select one of the seven (new or old) wonders of the world. As a student moves the mouse over a map, the longitude and latitude are shown in the lower left corner of the screen. Use Google Earth to locate each landmark and its coordinates. The class can mark the approximate location on their Xpeditions maps. Go to the Education Community site to access other ideas for using Google Earth.
The New Seven Wonders of the World
www.new7wonders.com/index.php?id=476
World Wonders
wonderclub.com/AllWorldWonders.html
Google Earth
earth.google.com/
National Geographic: Xpeditions Maps
www.nationalgeographic.com/xpeditions/atlas/
Google Earth Education Community
edweb.tusd.k12.az.us/dherring/ge/googleearth.htm

Geocaching is a popular "hide and seek" game that uses a handheld GPS. Small caches (filled with fun items to swap or a sign-in log) are hidden by geocachers all over the world. The longitude and latitude of these caches are listed on the game's website. Hide caches at school and have students use GPS coordinates to find them.
Geocaching
www.geocaching.com/
How Does a GPS Work?
www.satsig.net/maps/finding-lat-long-with-gps.htm
What Is a GPS?
www8.garmin.com/aboutGPS/

Assessment
- Did the students complete an online tutorial?
- Were they able to convert decimal degrees to degrees, minutes, and seconds?
- Could they use longitude and latitude to find world cities?
- Did students find the longitude and latitude of world landmarks?
- Did they learn to use a GPS?

Live Links
If you would like a PDF containing all of the live URLs from this Newsletter, send an email to
links@classroom.com

Electricity and Magnetism
Grades 3–8

Electricity is an integral part of our way of life. It lights homes, cooks food, and provides heat and air conditioning. Magnets make electricity inside machines that also help with everyday tasks. Spark an interest in the science of energy as you teach students how to conserve electricity and save our natural resources.

Learning Goals
- Take a virtual tour of a power plant.
- List ways to save energy.
- Use the Internet to find information about electricity and magnets.
- Build an electromagnet.
- Perform a science experiment for the class.

Activities
Electricity is a form of energy. Take a virtual tour of a power plant. These exceptional sites let students study the equipment needed to produce electricity and the step-by-step process that delivers it to homes and businesses.
Xcel Energy: Power Plant Tour
www.energyclassroom.com/powerplanttour.php
SRP: Power Plant Tour
www.srpnet.com/education/tour/
MidAmerican Energy: Virtual Plant Tour
www.midamericanenergy.com/html/aboutus3.asp

It's easy to take electricity for granted. Have students imagine a day without electricity and write a list of things they can't do. They can use the Internet to find out how some people live without electricity. Then have students research ways to save energy.
How Do You Live Without Electricity?
www.backwoodshome.com/articles2/evangelista73.html
How to Conserve Electricity
nhnh.essortment.com/conserveelectri_rsve.htm
Conserving Energy
www.jdec.org/conserving.html
Saving Electricity
michaelbluejay.com/electricity/howmuch.html

Finding ways to differentiate instruction is sometimes a challenge. Preview these websites and then assign them based on each student's ability and learning style. Give students a worksheet of terms to define: *current*, *electrons*, *protons*, *charge*, *positive*, and *negative*. Discuss the definitions.
What Is Electricity?
www.eia.doe.gov/kids/energyfacts/sources/electricity.html
Physics4Kids.com: Electricity and Magnetism
www.physics4kids.com/files/elec_intro.html
Electrical Safety World: What Is Electricity?
www.enersource.com/video/travels/whatis.html

Kids' Zone: Electricity
www.aecl.ca/kidszone/atomicenergy/electricity/index.asp
How Electricity Is Made
www.rp-l.com/makeelectricity.htm

In 1831, scientists found that an electric current produces a magnetic field. This discovery set the stage for the modern age of electricity. Generators produce electricity from magnets. Electric motors change electricity into mechanical power. Ask students to describe how magnets work and how they are used.
Magnets
www.school-for-champions.com/science/magnets.htm
How Magnets Work
science.howstuffworks.com/magnet.htm
Magnetism
www.factmonster.com/ce6/sci/A0831162.html

Make an electromagnet with a large nail, insulated wire, and a D battery. Partners can work together and use the website directions as a guide. Students can record their activity with a digital camera and create a PowerPoint presentation.
Electric Motors: The Green Machines
www.thirteen.org/edonline/nttidb/lessons/az/azbattery.html
Make an Electromagnet
www.energyquest.ca.gov/projects/electromagnet.html
ScienceBob.com: Build Your Own Electromagnet
www.sciencebob.com/experiments/electromagnet.html
Electromagnets
education.jlab.org/qa/electromagnet.html

Hands-on activities keep students on task. Select several magnet experiments from the websites. Have partners choose one of the experiments and demonstrate the steps to the class. Record the experiments with a video camera.
Magnet Man: Cool Experiments with Magnets
www.coolmagnetman.com/magindex.htm
Exploratorium Science Snacks: Magnetism
www.exploratorium.edu/snacks/iconmagnetism.html
Iron in Cereal
www.mcrel.org/whelmers/whelm07.asp

Assessment
- Did the class take a virtual tour of a power plant?
- Could students list ways to save energy?
- Did they use the Internet to find information about electricity and magnets?
- Were students able to build an electromagnet?
- Did they perform a science experiment for the class?

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A-Z SITE INDEX