

## Websites and Apps That Support Differentiated Instruction

Name	Description	Content Area	Gr.	Application for Differentiated Instruction
<a href="#">Bing/Babelfish</a>	<p><b>Yahoo! Babel Fish</b> was a web-based machine translation application on Yahoo! that translates text or web pages from one of several languages into another. On May 31, 2012, users were redirected to Bing Translator, Microsoft's online machine translation service. Bing Translator (previously <i>Live Search Translator</i> and <i>Windows Live Translator</i>) is a service provided by Microsoft as part of its Bing services to translate texts or entire web pages into different languages.</p>	All: Text translation	3+	Do you have ESL students? Text-to-text translation will support these learners as they collaborate with peers, decode complex passages, understand homework assignments, even comprehend in-class assignments.
<a href="#">Brightstorm</a>	Practicing teachers break down secondary math and science lessons into key concepts and skills to help insure learning; over 2500 videos.	Math, science and English	9+	This site will be used by middle and high school teachers. The videos can be reviewed carefully and then selected to support subgroups of students' learning needs, e.g., essay writing: introduction, supporting details, concluding paragraph; geometry: triangles, polygons, circles, transformations, etc. Great for accelerating advanced learners, reinforcing learning for unsure students, and heightening engagement for many, if used for the whole class. This site may prove valuable for advanced middle schoolers.
<a href="#">Cast Science Writer</a>	Cast Science Writer is a tool that helps middle and secondary students write labs and science reports.	Science	5+	Science teachers who have students who have difficulty writing and completing science lab reports will find this site helpful. All parts of a science or lab report are broken into small steps so the author can concentrate on one part of the report at a time. Great text-to-speech bar. It can

				also be used by beyond-grade-level upper elementary students.
<a href="#">Convert Anything to Anything</a>	Convert just about anything to anything else. Over 5,000 units and 50,000 conversions.	All	4+	Teachers who have students who have difficulty remembering conversion formulas will find this site helpful. Teachers can use it to support the needs of advanced learners who need acceleration options because there are so many different units: angles, density, energy, force, length/distance, light, pressure, and weight/mass.
<a href="#">DifferentiationCentral</a>	Carol Tomlinson and her graduate students designed this website as your 'go to' place for reliable information and resources that will help deepen your understanding and enhance your practice of differentiated instruction.			Teachers who want more information about curriculum differentiation will find this site invaluable. There is introductory material as well as videos and lectures about different aspects of the differentiation process.
<a href="#">Digital History</a>	Digital History is an enormous database of historical materials. As of May 2012, they have a new interface so that materials are organized by era, so users will easily be able to view many different types of resources for a particular era such as the textbook, images, primary sources, multimedia and teacher materials.	Social Studies/ History	5+	Upper elementary, middle and high school teachers can use this site to address the interests of students. For example, The "House Divided" link contains 77 images, letters or documents about Lincoln and the Civil War. When teachers review these historical documents, pictures, letters, paintings, they can select the ones that appeal most to their students.
<a href="#">Discovery Streaming</a>	Discovery Streaming has more than 125,000 multimedia components seamlessly that can be incorporated into curriculum units. This digital video-based learning resource is pricey, usually about \$995 per elementary school per year; \$1495 per high school	All content areas, especially science and social studies	K-12	Teachers who are lucky enough to have this resource will have to peruse the data base of video segments to locate just the right ones for the curriculum unit being taught. These segments can be used to intrigue a whole class of students or extend or support learning for subgroups of young people.
<a href="#">Free.ed.gov</a>	This site acts as a clearinghouse for all of the educational materials produced by government organizations including: animations, primary source documents, videos and photos on just about any topic. Over 1600 learning resources organized by	All	K+	This site will be used by American history teachers who want to support students who have different interests and/or perceive information in different ways (e.g., visual, auditory, reading/writing, tactile). By carefully reviewing the materials and

	subject: art, history, language arts, math, science, and others.			assessing students' level of prior knowledge, some of the materials can be used to tier assignments about a particular topic.
<a href="#">Gilder Lehrman Collection</a>	The Gilder Lehrman Collection is a unique archive of primary sources in American history. Owned by the Gilder Lehrman Institute of American History and located at the New-York Historical Society, the Collection includes more than 60,000 letters, diaries, maps, pamphlets, printed books, newspapers, photographs, and ephemera that document the political, social, and economic history of the United States. An extensive resource for educators, students, and scholars, the Collection ranges from 1493 through the twentieth century and is widely considered one of the nation's great archives in the Revolutionary, early national, antebellum, and Civil War periods.	Social Studies/History / Language Arts	5+	Primary documents can be sorted by "object type" letters and documents, books and pamphlets, posters, diaries and journals, engravings and drawings, photographs, maps, objects, and newspapers. The sorting function may assist in addressing student learning style preferences and prior knowledge (tiering).  Teachers will need to review the resources at this site to ensure that just the right resources are selected.
<a href="#">Project Gutenberg</a>	<b>Project Gutenberg (PG)</b> is a volunteer effort to digitize and archive cultural works and to encourage the creation and distribution of eBooks. Project Gutenberg offers over 40,000 free eBooks. Choose among free epub books, free kindle books, download them or read them online. Available in over 50 languages,	English/ Social Sciences	5+	This site can be used by teachers who need supplementary texts for a range of readers. Books are indexed by author, title, language or recently posted. All books are in the public domain.
<a href="#">Kahn Academy</a>	Over 3,300 educational videos is a searchable data base. The videos are categorized into topics: math, humanities, science , finance and economics, and test prep.	All	1+	The goal of this website is to provide a ceiling-less learning environment for all students. Over 3,300 videos can be used to accelerate or provide additional support for students across all content areas.
<a href="#">Kathy Schrock's Guide for Educators</a>	A categorized list of sites useful for enhancing curriculum and professional growth. It is updated often to include the best sites for teaching and learning; contains a great set of links on webquests: <a href="http://school.discoveryeducation.com/schrockguide">http://school.discoveryeducation.com/schrockguide</a>	All content areas	K-12	A categorized list of sites useful for enhancing curriculum and professional growth. It is updated often to include some of the best sites for teaching and learning. As such, it might prove helpful to educators who try to stay current about

	<a href="/webquest/webquest.html">/webquest/webquest.html</a>			useful websites.
<a href="#">Kidsclick</a>	A safe search engine for that is designed specifically for younger students.	Research	2+	Sometimes elementary teachers express frustration over the kinds of material that is available to younger students who search the web on research-based missions. Kidsclick is mindful of these concerns and provides younger students with a safer opportunity to support their online investigations and studies.
<a href="#">Lexile.com</a>	This web site provides information about lexile scores, as well as a “Quick Search” function that allows teachers to determine the lexile score of any book. Lexile scores measure word frequency and sentence length. To Kill A Mockingbird (See Scholastic and Text Complexity, below)	All	K+	Teachers can use this site to assess the lexile scores of a particular book <i>as a first step</i> to help ensure that students—reluctant and advanced readers alike—are reading at the appropriate level.
<a href="#">Library of Congress</a>	The Library of Congress is the research library of the United States Congress, <i>de facto</i> national library of the United States of America, and the oldest federal cultural institution in the United States.	History, Social Sciences, Research	5+	History teachers will find that this mega-site is organized with the following links: American Memory, Prints and Photographs, Historic newspapers, Veterans History, Sound Recordings, Performing Arts, Film, Maps, and Manuscripts. Hundreds of primary source documents are catalogued in a searchable data base. Teachers who have struggling or reluctant learners and advanced students will be able to provide them with “just-right” resources, whether addressing students’ learning perception preference or interests. Students’ different readiness levels can also be addressed. Political cartoons: <a href="http://www.loc.gov/teachers/classroommaterials/presentationsandactivities/activities/political-cartoon/cag.html">http://www.loc.gov/teachers/classroommaterials/presentationsandactivities/activities/political-cartoon/cag.html</a> Revolutionary war cartoons: <a href="http://www.loc.gov/pictures/resource/cph.3a35347/">http://www.loc.gov/pictures/resource/cph.3a35347/</a> and <a href="http://www.loc.gov/pictures/resource/cph.3g053">http://www.loc.gov/pictures/resource/cph.3g053</a>

				<a href="#">15/</a> Don't miss the teacher's website for detailed information about using primary source documents. With the Common Core State Standards (CCSS) focus on non-fiction, using this site will support not only CCSS, but also the creation of tiered instruction. Differentiate by content, by interest area, preferred learning style. Contains a super newsletter about teaching elementary students using primary resources: <a href="http://www.loc.gov/teachers/tps/quarterly/elementary/article.html">http://www.loc.gov/teachers/tps/quarterly/elementary/article.html</a>
<a href="#">LibriVox</a>	LibriVox - founded in 2005 - is a community of volunteers from all over the world who record public domain texts: poetry, short stories, whole books, even dramatic works, in many different languages. All LibriVox recordings are in the public domain in the USA and available as free downloads on the internet. If you are not in the USA, please check your country's copyright law before downloading. To learn about most recent downloads: <a href="http://archive.org/details/librivoxaudio">http://archive.org/details/librivoxaudio</a>	Reading: Online digital library	6+	Teachers with struggling or reluctant readers will be able to use this site to scaffold for these young people. With careful selection, teachers can help to ensure that all students have access.
<a href="#">Museum Box</a>	In Museum Box, users can create a collection of artifacts (a text file, picture, movie) that are representative of a person, event, or historical period. Students can even create Museum Boxes to support an argument in a debate. View Youtube overview: <a href="http://www.youtube.com/watch?v=U6fDRktWIGg">http://www.youtube.com/watch?v=U6fDRktWIGg</a>	All	3+	Museum Box is very clever tool that teachers can use to address students' product style preferences. Teachers can also use it to address different levels of background knowledge because students can select the complexity and sophistication of the resources in the box.
<a href="#">National Archives</a>	The National Archives and Records Administration (NARA) is an independent agency of the United States government charged with preserving and	History/Social Studies	3+	This site contains billions of American records, all of which can be considered primary source documents. Menu features: Search our Records

	documenting government and historical records and with increasing public access to those documents which comprise the National Archives. NARA is officially responsible for maintaining and publishing the legally authentic and authoritative copies of acts of Congress, presidential proclamations and executive orders, and federal regulations.			and Teacher Resources. This site lends itself to tiering, K-12, simply because there are so many documents at different reading levels about important topics in social/studies/US History. This site explores techniques for using primary sources with students with disabilities: <a href="http://tps.nl.edu/TPSjournafreville11.htm">http://tps.nl.edu/TPSjournafreville11.htm</a>
<a href="#">National Archives of Virtual Manipulatives</a>	Teachers will find activities for every area of math at every grade level. Shapes to pre-schoolers? Try Attribute Blocks, which challenges students to sort virtual objects. Working on functions? Drop numbers into the function machine to identify the pattern. Requires Java.	Math	K+	This is a great site for students at all levels of understanding about important concepts in mathematics. The manipulatives can be used to reinforce learners who struggle with particular mathematical concepts or for those who need acceleration options. Teachers will have to review the different activities and carefully select those that are most appropriate for different subgroups of students.
<a href="#">Project CONN-CEPT</a>	Project CONN-CEPT was a Javits Grant awarded to the Connecticut State Department of Education in 2007. Over a dozen differentiated curriculum units, K-8, were created in science and social studies and that available for downloading. They are based on the <i>Parallel Curriculum Model</i> .	Social studies and science	K-8	Every unit contains aligned pre and post assessments—as well as formative assessments—and a variety of strategies to customize for students’ interests and prior knowledge levels.
<a href="#">Quixey</a>	Quixey allows the user to conduct app searches across multiple platforms. It can be used efficiently to narrow the search by device, by paid or free apps, or by some other filter.	All	K-12	Teachers can use this site to locate relevant apps for students. If you have a mixed platform class, Quixey shows where app crossover is possible.
<a href="#">Road to Revolution</a>	This website, sponsored by PBS, offers an interactive game about the American Revolution, interactive activities about daily life in the colonies, the global village, and military perspectives; and vignettes about the men and women of the Revolution.	Social Studies/History	4+	This site can be used to address student learning style preferences and support extension activities and centers.
<a href="#">Scholastic</a>	Make sure to look at <a href="#">Book Wizard</a> , which allows one to search over 50,000 books by reading level, use BookAlike to match similar books at different	Reading/ Language Arts		This is a site for the teacher who has always wanted a “go-to” site that will provide names of books that have a similar theme, but are written

	reading levels, gather lesson plans and discussion questions.			on an easier or more difficult reading level.
<a href="#">Smithsonian Education</a>	The Smithsonian Center for Education and Museum Studies provides leadership in education at the Smithsonian and produces a variety of programs, services, and resources for the education and museum communities. The Center studies education at the Institution and builds consensus on standards for strengthening its educational programs, publications, and websites. <a href="#">Scientists @ the Smithsonian</a>	Art, the humanities, science, and technology	3+	Do you have a class that contains students with diverse interests, levels of motivation, and/or background knowledge? This contains resources, lesson plans, videos, interactive activities that can be used to address the way students learn and their interests. Plan to spend time on this site to become familiar with all the available content to select just the right resources to address subgroups of students' learning needs.
<a href="#">Smithsonian Shout</a>	"Shouts" help to frame participant understanding of our relationships and interactions with the natural world: Live, Study, Change, Sustain, Value and Celebrate. Each Shout connects students and teachers to a live event, teacher networking, and student collaborations focused around a specific theme, and presents students with challenges designed to deepen their learning and engagement. Shout is at once a program framework and a call to action. Recent Shout topics: The World's Students Monitor the World's Trees, Inspiring Students About Living, Breathing Changing Soils, Community Narratives: Citizens Recording History Youtube video <a href="http://www.youtube.com/watch?v=hfskgelQv7o&amp;feature=related">http://www.youtube.com/watch?v=hfskgelQv7o&amp;feature=related</a>  Water Quality series, 2012: <a href="http://www.smithsonianconference.org/shout/program-2012/#conference3">http://www.smithsonianconference.org/shout/program-2012/#conference3</a>	Science, social action, environmental science	5+	Science teachers who want to make content relevant to students who have less-than excited levels of interest in STEM related fields will appreciate what this site has to offer. Social action and collaboration can be selected by interest area. Furthermore, some topics are more complex than others and, therefore, can be used to organize learning for students by readiness level.

<a href="#">Tar Heel Reader</a>	<p>This website contains easy to read books with audio support for beginning readers of all ages</p>	<p>Reading and Writing</p>	<p>1+</p>	<p>Teachers with struggling or reluctant readers can use the audio support provided at this site to provide access for more students to rigorous reading content.</p>
<a href="#">Teachertube</a>	<p><b>TeacherTube</b> is a video sharing website similar to, and based on, YouTube. It is designed to allow those in the educational industry, particularly teachers, to share educational resources such as video, audio, documents, photos, groups and blogs. The site contains a mixture of classroom teaching resources and others designed to aid teacher training. A number of students have also uploaded videos that they have made as part of K-12 and college courses. As of October 2010, TeacherTube had over 725,000+ educational members and over 200,000 educational videos. It has found favor with educators for whom YouTube content is blocked by content filtering systems. Watch out! Add supported... Circumference: <a href="http://www1.teachertube.com/viewVideo.php?video_id=270115">http://www1.teachertube.com/viewVideo.php?video_id=270115</a></p>	<p>All</p>	<p>1+</p>	<p>Ever wonder what other teachers do to support student learning? On TeacherTube, teachers from around the country provide raps and other noteworthy options for helping students learn content. Careful screening by potential users may uncover a resource that you need to differentiate for your students.</p>
<a href="#">TeacherVision</a>	<p>This site is designed for teachers and contains over 22,000 pages of resources, lesson plans and other printable material.</p>	<p>All</p>	<p>K-12</p>	<p>If you have secondary students and are trying to personalize the learning environment—which is especially hard for middle and high school teachers—check out the page of ideas for “Personalizing the Secondary Classroom.” There is also a whole page of different graphic organizers that may be of interest to teachers with reluctant or struggling learners who need support with a particular set of lessons. The data base is noteworthy because users can search by grade level and then by content. For example, there are 20 listings for “nonfiction, grade 6.”</p>

				Teachers will need to spend time reviewing what is on this site and then select the most appropriate resources for subgroups of students.
<a href="#">TED</a>	<p><b>TED (Technology, Entertainment and Design)</b> is a global set of conferences owned by the private non-profit Sapling Foundation, formed to disseminate "ideas worth spreading." Since June 2006, the talks have been offered for free viewing online. As of November 2011, over 1,050 talks are available free online. By January 2009 they had been viewed 50 million times. In June 2011, the viewing figure stood at more than 500 million, reflecting a still growing global audience.</p> <p>E.O. Wilson:  <a href="http://www.ted.com/talks/e_o_wilson_advice_to_young_scientists.html">http://www.ted.com/talks/e_o_wilson_advice_to_young_scientists.html</a></p>	All	4+	<p>Want to increase student curiosity and motivation about a particular topic? This site can be used to heighten student interest, inquiry and motivation. Teachers can also use the lectures to support tiered lessons and anchor activities/centers.</p> <p>Video talks can be sorted by topic, newest releases, most viewed, most popular in the past month, etc. Educators will need to preview the videos to ensure the best fit for their students.</p>
<a href="#">Thinkfinity</a>	Searchable data base of standards-based lesson plans in all grade levels and content areas that teachers can use to increase/decrease the cognitive load of lessons. This link stands above the rest because its content comes from the best names in learning-language arts from ReadWriteThink, science from American Association for the Advancement of Science, ARTSEDGE, etc	All	K+	This site is one of the best mega sites for all content areas. It contains many lessons, K-12, which include extension activities and suggestions for further exploration to challenge advanced students. Additionally, there are over 1000 video clips arranged by topic and grade level to support students learning and interest level, as well as interactive activities across all subject areas. It will require careful review by teachers to select the appropriate resource for whole-class instruction or subgroups of students.
<a href="#">Tools for Examining Text Complexity</a>	A variety of factors interact and influence the degree of complexity in a text. Text complexity moves beyond the lexile score that measures word frequency and sentence length of a text and aligns with the requirements of Common Core State Standards (CCSS). Tools have been created to help educators assess the complexity of both	Reading across all content areas	K+	Students within a given class read on a wide range of grade levels. To provide them with appropriate reading materials is a challenge. The tools developed by Hess and Harvey will help teachers increase the match between readers and literary and informational texts. Using these tools effectively and efficiently will require teachers to

	informational and literary texts and they are included in this article.			practice and collaborate with peers. The following article by Hess and Biggam (2004) may also prove helpful because it provides descriptors of text complexity by grade spans: <a href="http://www.nciea.org/publications/TextComplexityKH05.pdf">www.nciea.org/publications/TextComplexityKH05.pdf</a>
<a href="#">Tiered Lessons</a>	This website includes guiding questions that educators can ask themselves to support the process of tiering a lesson.	K-12		Ever wonder just how a teacher tiers a lesson for students with different levels of background knowledge? This web site includes guiding questions that can steer a teacher through the tiering process.
<a href="#">VideoLecture</a>	VideoLectures.NET is an award-winning free and open access educational video lectures repository. The lectures—over 12,000—are given by distinguished scholars and scientists at the most important and prominent events like conferences, summer schools, workshops and science promotional events from many fields of Science. The portal is aimed at promoting science, exchanging ideas and fostering knowledge sharing by providing high quality didactic content not only to the scientific community, but also to the general public.	All science fields	9+	Do you have advanced learners at the secondary level? The lectures on this science website are very sophisticated, will require viewing, but will be worth the effort.
<a href="#">Wallwisher</a>	Wallwisher is an online collaboration tool to share ideas, resources, and thoughts on a particular topic. It can be used to post activities/questions for students, for brainstorming, for class notifications. Downside: Monitoring is critical to ensure respectful posts.	Create and design	3+	Wallwisher is a tool students can use to share information about their interests, books they are reading, etc. It can be a product format for students who are uncomfortable speaking in front of a group. Thirty-two different t ways to use Wallwisher: <a href="https://docs.google.com/present/view?id=dhn2vcv5_436f8kscmdc&amp;pli=1">https://docs.google.com/present/view?id=dhn2vcv5_436f8kscmdc&amp;pli=1</a>
<a href="#">Webquest</a>	A WebQuest is an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web. The model was developed by Bernie Dodge at San Diego State	All content areas	3+	Webquests, available in increasing levels of complexity, can be used to increase student motivation and foster inquiry-based thinking. They support differentiation by allowing students

	University in February, 1995. Visit the following website to access existing webquests by content area and grade level <a href="http://questgarden.com/search/">http://questgarden.com/search/</a>			to select product formats and use resources that work best for their level of understanding.
<a href="#">Wordle</a>	Wordle is a tool for generating “word clouds” from text that the user provides. The clouds give greater prominence to words that appear more frequently in the source text. Clouds can be tweaked with different fonts, layouts, and color schemes. Students can print them out, or save them to the Wordle gallery to share with friends. Examples: <a href="http://www.wordle.net/">http://www.wordle.net/</a>	Create and design	2+	Wordle is a tool students can use to share their interests, perception and product preferences with each other.
Professional Organizations				
English <a href="#">NCTE</a>	National Council of Teachers of English			
Mathematics <a href="#">NCTM</a>	National Council of Teachers of Mathematics			
			All	
	<a href="#">Activities</a> : Explore a library of 108 online activities, by grade (K-2; 3-5; 6-8; 9-12) that help to make math come alive in the classroom or at home <a href="#">Lessons</a> : Illuminations has 607 lesson plans available (by grade level and standard). Select which types of lessons you're looking for, and click <b>Search</b> . <a href="#">Standards</a> : Outlines the essential content for a high quality mathematics program, K-12. <a href="#">Weblinks</a> : Illuminations has links to 724 math resources on the web that have been approved by an editorial board. Click on a Standard to find different types of resources that may support differentiation.			
Science <a href="#">NSTA</a>	National Science Teachers Association		All	

	<p><a href="http://www.scilinks.org/Sample.aspx">http://www.scilinks.org/Sample.aspx</a> <b>SciLinks</b>® is a partnership between U.S. textbook publishers and the <a href="#">National Science Teachers Association (NSTA)</a>. SciLinks include:</p> <ul style="list-style-type: none"> <li>• Websites to extend and expand students' understanding,</li> <li>• Science news to add context to their classroom learning, and</li> <li>• Activities to bring science alive</li> </ul> <p>... all preselected and preapproved by the NSTA Webwatchers search team!</p> <p>SciLinks is a free service—all you need is a SciLinks-enabled textbook or a computer connected to the Internet. Membership to NSTA is required.</p>			
	<p><b>Science 360</b> (<i>link to app in US iTunes store <a href="#">here</a></i>). “The National Science Foundation’s (NSF) Science360 for iPad provides easy access to engaging science and engineering images and video from around the globe and a news feed featuring breaking news from NSF-funded institutions”</p>		All	
Social Studies <a href="#">NCTSS</a>	National Council of Teachers of Social Studies			
	<p><b>Social Studies and the Young Learner (SSYL)</b> (Gr. K-6, \$) features teaching ideas, lesson plans, and handouts written by and for K-6 elementary educators. This colorful, peer-reviewed, 32-page, journal is published four times a year. Read about the <a href="#">current issue</a>, download a <a href="#">free article</a>, or access the current and back issues at the online members-only <a href="#">Archive</a>.</p>		K-5	All three of the NCTSS publications contain information about very readable primary source documents—ranging from easy to more difficult—that can be used to address the learning needs of subgroups of students. Additionally, each publication contains a list of Notable Trade Books for Young People that can be used to: integrate curriculum areas and support collections of thematic books that range in reading levels. (Trade book lists are free to the public.)
	<b>Middle Level Learning</b> (Gr. 5-8, \$)		5-8	

	<p>MLL is published three times a year as a 16-page, color-illustrated PDF. Read about <a href="#">the current issue</a>, download a <a href="#">free issue</a>, or access the current and back issues at the online <a href="#">members-only Archive</a>. (Access free issue)</p>			
	<p><b>Social Education</b> (Gr. 9-12, \$) includes techniques for using materials in the classroom, information on the latest instructional technology, reviews of educational media, research on significant social studies-related topics, and lesson plans. Access back issues at the online members-only Archive. Read about the <a href="#">current issue</a>, or access <a href="#">Notable Social Studies Trade Books for Young People</a>, which is published in the May/June issue of <i>Social Education</i>.</p>		9-12	

Apps

Name	App Description	Grade	Application(s) for Differentiated Instruction
<b>SCIENCE</b>			
<a href="#">The Elements: A Visual Exploration</a> , app for iPhone/iPad (6.99)	<p>The Elements: A Visual Exploration lets you experience the beauty and fascination of the building blocks of the universe in a way you've never seen before. Learn about the periodic table in a hands-on way. Choose any element -- copper for example, and see various copper objects - a Persian weave chain, a brass ring, a Chinese bronze - and then rotate them with your finger to get a 3D view. This is one of those iPad apps that brings learning to life.</p>	6+	<p>If you are a middle or high school science teacher who has students with different learning perceptions, then this app is worth a review. It is highly interactive, contains great images, and provides an enormous amount of material about each of the elements. Simultaneously, it could be used to heighten the interest of all students about the elements. Middle school teachers could also benefit from this app to heighten student interest and address the learning needs of advanced students.</p>
<a href="#">Science 360</a> (Free)	<p>The National Science Foundation's (NSF) Science360 for the iPad provides easy access to engaging science and engineering images and video from around the globe and a news feed featuring breaking news from NSF-funded institutions.</p>	3+	<p>This app can be used to heighten the interest of all students in science and engineering topics. The app could also support extension projects—such as research about a contemporary topic—for students needing more challenging work in these content areas.</p>
<a href="#">Vanished</a> (Free)	<p>VANISHED was an 8-week online/offline environmental disaster mystery game for middle-school children, meant to inspire engagement and problem solving through science. Developed by the MIT's <a href="#">Education Arcade</a> and by the Smithsonian Institution, VANISHED encouraged participants to investigate an environmental disaster by using real scientific methods, by visiting museums and collecting samples from their neighborhoods, and by participating in online challenges. This quest ran in spring 2011. Visit the site to learn about future games.</p>	5-8	<p>Middle school science teachers can use future games as a whole class activity if the challenges are aligned with learning objectives. Vanished could also be used for subgroups of learners who need an additional challenge.</p>
<a href="#">Hubble Top 100</a> (Free)	<p>The images included in the Hubble Top 100 app are as astounding and mystifying as the stars. Taken directly by the Hubble telescope itself, the images feature breathtaking colors, lights and patterns of swirling gases and air. Information accompanies each photo, as well as a slideshow with techno-ish music.</p>	4+	<p>This site could be used by any science teacher to heighten the interest of students in astronomy and/or technology. It could also be used as part of a contract, learning center or anchor activity. Users will have to preview the images and select those that are most appropriate. The images are not catalogued, so it is hard to jump to just-the-right picture.</p>

<a href="#">The Planets</a> (Free)	This app gives you in-depth information on all the planets (with the exception of Pluto). You can locate planets in either 2D or 3D mode and select different visibilities of the sky, such as X-ray, Infrared, Microwave and Radio. There is also a Globe function that lets you view a rotating 3D image of all the planets and the moon.	4+	If you are an upper elementary or middle school teacher and have students who have diverse methods of sensory perception, this site will be valuable. Students can learn about the planets in an interactive way, as well as produce reports on topics of their interest and customize their own tours of the galaxy.
<a href="#">NASA</a> (Free)	NASA’s official app has space images and videos, a calendar of their missions, and a launch schedule. You can also tap on satellites and learn about how and why they were launched into space.	K-12	NASA is an app that will further a whole class’s interest in space exploration. It will also support the needs of those who aspire to be future astronauts, as well as subgroups of students who have a particular interest in science and engineering. There are hundreds of photos (not catalogued), videos—current and historic—that focus on all aspects of our space exploration, and “Featured,” a monthly program that explores a particular topic including for example: “Got Life” July/August, 2012; “Ice” April 2012; “Shadows of the Sun,” an in-depth look at how light and gravity affect our planet’s motions, weather, oceans and life, (March, 2012).
<a href="#">Star Walk</a> (\$4.99)	You look up at the stars, but you have no idea what you’re seeing – until now. Star Walk lets you simply point your device to the sky and automatically map out the constellations. You can also track moving satellites, look at skies from nights past or the future and tap anywhere on the screen to get a star's exact position in the sky.	All	Seeing and learning about the night sky and the star systems in a highly interactive way creates immediate learning for many in a way that has never been possible. Thus, this app might prove beneficial for a whole class of subgroups of learners. Star Walk’s breadth of astronomic data is impressive: you can explore more than 9,000 stars, constellations, planets, and other celestial bodies. History teachers can take advantage of the Time Machine feature that displays what the sky looked like at any time in the past, or will look like at any time in the future. Webby Awards 2012 Nominee in Education and Reference category, Winner of Apple Design Award 2010 for the iPad version. The app works well when paired to a secondary screen,

			which makes presenting it to a classroom so much easier. Video clip: <a href="http://dailyappshow.com/star-walk-499-education">http://dailyappshow.com/star-walk-499-education</a>
<a href="#">Frog Dissection</a> (\$3.99)	Kind of amazing that instead of a real scalpel, and a slippery, formaldehyde-reeking amphibian that you dread slicing into, you can now dissect a virtual frog. The virtual frog is complete with pins to hold down the limbs, a marker to identify where you'll make the cut, scissors to open up the smooth abdomen, and forceps and scalpel to prod and poke at the internal organs. A robotic-sounding female voice guides you through the dissection.	6-12	Are you a science teacher with students who have an aversion to dissection of euthanized creatures? This app can be used for students who prefer a virtual dissection.
<b>MUSIC</b>			
<a href="#">Garageband</a> \$4.99	An amazing amount of functionality for \$4.99, this app allows students to record and compose music in a fun and intuitive audio sequencer. They can build with music loops, play and record virtual instruments of all types, and instantly publish and share their songs to iTunes or email	2-12	This app will address student interests and learning perception preference/product style preferences. Students can easily use Garageband to record a whole oral presentation or podcast on a subject, or make songs to teach the class about what they are learning.
<b>ORGANIZATION</b>			
<a href="#">Dropbox</a> Free	This excellent app allows you to store files in the cloud, and access them on any device or computer with an internet connection. This is an essential app for teachers managing a set of iPads in the classroom because it allows you to sync files between you and your students.	3+	Dropbox allows a teacher to collect, manage and differentiate student work. For example, teachers can send documents and links to individual students' folders, which contain their individualized learning materials.
<a href="#">Evernote</a> : Free	Take notes, save links and images, scan handwritten class notes, make review flashcards from notes, and even record audio into searchable notes that get saved online. You can access your notes from any device, computer, or internet browser. You could conceivably use the audio recording function to record and index entire lessons and lectures.	4+??	If you have students who need an interactive way to keep organized, this is a free app that might help even your most reluctant student. The record feature is particularly helpful for a young person who has trouble getting all the notes he or she needs. Some claim they have used Evernote with early elementary students.
<b>SOCIAL STUDIES</b>			
<a href="#">Early</a>	Victory Productions presents an interactive textbook	3-6	This app is highly interactive and could be used to address

<a href="#">Jamestown</a> (Free)	<p>exploration of the early days of the Jamestown settlement and the state of Virginia. Enjoy the interactive graphics and the engrossing story of a key moment in the history of the United States. Embedded videos chronicle the beginnings of the Jamestown Settlement, the first permanent English colony in North America</p>		<p>learning styles. It would also be could be used as an extension activity, part of an anchor station or learning contract.</p>
<a href="#">History: Maps of the World</a> (Free)	<p>This app includes an educational collection of high-resolution, historical maps including, for example: Density of Population, 1918; The Age of Discovery, 1340-1600; Gulf Stream and Drift, 1858; and Notable High Buildings of the World, 1896.</p>	4+	<p>Use this site as an activity at an anchor station, as a hook to increase student engagement, for independent research projects, as an extension activity or for tiered lessons. It is an enormous collection of maps that individual or subgroups of students can access. Students will more than likely need background information and support as they use the maps. Beware the ads!</p>
<a href="#">StoryCorps</a> (Free)	<p>StoryCorps is an independent nonprofit project whose mission is to honor and celebrate one another's lives through listening. Since 2003, over 50,000 everyday people have interviewed family and friends through StoryCorps. Each conversation is recorded on a free CD to share, and is preserved at the Library of Congress. StoryCorps is one of the largest oral history projects of its kind, and millions listen to weekly broadcasts on NPR's Morning Edition and on Listen pages.</p>	4+	<p>Do you have students who see history as something that is read about only in textbooks? Use this app to dispel this notion and to heighten the interest of students in topic/time period. Teachers can also consider selected interviews as starting points for differentiated research activities. Finally this app would make a great option at an anchor station.</p>
<a href="#">Google Earth</a> (Free)	<p>This app includes the same global satellite and aerial imagery that is available in the desktop version of Google Earth.</p>	4+	<p>It's simply awesome to see your home from Google Earth. In the same way, teachers can use this app to heighten the interest of students in other aspects of geography and history.</p>
<a href="#">The Battle at Gettysburg</a> (Free)	<p>The Battle at Gettysburg contains 60 high-quality photos and drawings, 10 maps, 10 first-hand accounts and a six minute movie summary bring to life the most important battle in American History. The program includes a reading of the Gettysburg Address—delivered by President Lincoln—at the dedication of the Gettysburg</p>	4+	<p>Are you a middle or high school teacher with students who need to understand the Civil War from more of a first-hand approach? Try this app. It can be used to heighten interest in the Civil War, support center/anchor activities, address learning style differences, and create tiered lessons. Teachers will need to preview this site and select the</p>

	National Cemetery. This program is excerpted from the larger "Civil War: America's Epic Struggle."		appropriate resources.
<a href="#">The Constitution and Federalist Papers</a> (Free)	<p>Our CONSTITUTION and THE FEDERALIST PAPERS app one of the best way to learn about the Constitution of the United States. Not only does the app include the full text of the Constitution, the product also features an explanation of each and every clause, as well as commentary on each of the amendments.</p> <p>The complete text of all 85 of the Federalist papers in also included. Program users will enjoy photos of the authentic Constitution document. Using the unique capabilities of the iPad/iPhone you can zoom in on any part of the actual Constitution. A brief history of the writing of the Constitution and the Federalist papers is included.</p>	6+	The support provided to readers in this app makes it perfect for students who might otherwise struggle with reading these important American documents.
<a href="#">World View</a> (\$2.99)	WorldView by webcams brings the world to you. Watch over 16000 webcams from all over the world in fullscreen on your iPhone or iPod touch when connected to the internet. Search for a place, for webcams nearby, or take a look at popular webcams from around the world. Ad supported	All	Whether used by students or teachers, this app will support student engagement because they can view "live" pictures of places they are studying/researching.
<b>MATHEMATICS</b>			
<a href="#">Intro to Math</a> (\$4.99)	<a href="#">Intro to Math</a> is a great supplement if students are familiar with Montessori-inspired math techniques. It includes five separate interactive math skills. Within each activity, multiple layers exist to reinforce skills such as proportion, counting, number writing, number recognition, and number order. The games are based on time-tested Montessori teaching methods. It is not the cheapest app!	Pre-K-K	If you are a pre-school or early elementary teacher with students who need reinforcement with basic math concepts, this app might be able to help out. It has good graphics, sounds and reinforcement for youngsters. This app could also be used by pre-school teachers to teach very young ones counting, number writing, number recognition and number order.
<a href="#">ArithmeTick</a> (Free)	How fast can you add and multiply? Solve math problems against the clock! ArithmeTick is a challenging math game where you solve addition, subtraction,	K-3	If you teach the basic math skills and find that you have students at different levels of prior knowledge, you can use this app because it has four different levels of difficulty:

	multiplication and division problems.		normal, hard, genius and Einstein.
<a href="#">Basic Math</a> (Free)	This is an application based on drill-and-practice in addition, subtraction, multiplication and division. Similar to memorization, such a strategy presents the tasks to be completed repetitively to build up the foundation skills for more meaningful learning in the future. It is targeted for children under 12 and includes varying degrees of difficulty.	4+	This app can be used by teachers who have students at different levels of readiness with the basic mathematics operations.
<a href="#">Concentration</a> (Free)	By yourself or against a friend, match whole numbers, shapes, fractions, or multiplication facts to equivalent representations. Practice with the clear panes or step up the challenge with the windows closed.	PreK+	If you have early elementary students who need some additional time practicing one-to-one correspondence, their addition and multiplication facts, as well as shapes, this app might be your answer. Young people can have the panes "open," or they can go for additional challenge by opting to have the panes closed and be required to remember what is behind each pane.
<a href="#">Math Quizzer</a> (Free)	<p>Math Quizzer is an interactive way to, not only learn, but also boost students' skills in addition, subtraction, multiplication, and division. It offers an easy to understand chalkboard visual, which keeps track of students' "score" as they progress. It's excellent for all ages and all skill levels as it allows you to select a specific category or from all four subject areas.</p> <p>This math "flashcard" approach allows beginners to learn at their own pace while also allowing intermediate and advance levels to be challenged based on their speed.</p>	4+	This site will support students who need that little bit of extra practice to master their basic mathematics skills. Because it keeps track of each player's score, you might even think about it as a pre-assessment technique.
<a href="#">Illuminations: KenKen</a> (Free)	KenKen is a puzzle game that helps students improve their calculation skills, logical thinking and persistence. The goal is to fill a grid with numbers so that no number appears more than once in any row or column. In addition, the numbers must combine to form a target number using a specific operation.	4+	Simply put, Ken KEN is a grid-based numerical puzzle that uses the basic math operations—addition, subtraction, multiplication, and division—while also challenging students' logic and problem-solving skills. By altering the size of a KENKEN grid, from 3 x 3 up to 9 x 9, and employing different combinations of the math operations, five different difficulty levels can be generated, and a seemingly

			<p>endless number of puzzles. Thus, this app can be used by teachers to challenge all levels of learners in a center, activity or at an anchor station.</p> <p>Video about how to play KEN KEN:  <a href="http://www.youtube.com/watch?v=uYTrrsxJqb0&amp;feature=related">http://www.youtube.com/watch?v=uYTrrsxJqb0&amp;feature=related</a></p>
<p><a href="#">Rocket Math:</a> \$0.99</p>	<p>This app is a very high quality and comprehensive math game. Rocket Math lets children design and build a rocket using money they earn by solving math problems. The learning doesn't stop there though, as the child can then launch the rocket into orbit to practice a very wide array of different math skills. Students can practice multiplication, division, addition, subtraction, decimals, multiples, square roots, and even money and geometry.</p>		<p>Do you have students with different levels of prior knowledge related to basic mathematics skills? This is really quite the app because: (1) it contains a range of skills students can practice, (2) it allows players (or the teacher) to select the level of difficulty, and (3) the animation is clever. It can be used for the whole class, subgroups of students' needs, as an anchor station activity that is tiered based upon student need, or as an interest center.</p>
<p><a href="#">WolframAlpha:</a> \$1.99</p>	<p>This app allows you to search and view statistics about almost anything you can think of, and it also balances chemistry equations and solves difficult algebra, trig, and calculus problems. It's a calculator. It's a music database. Encyclopedia. Stock tracker. Dictionary. Currency converter. Wolfram Alpha presents a different way of interacting with knowledge and data than anything else out there on the web. Built on the foundation of Wolfram's Mathematica product, Wolfram Alpha is a "knowledge engine" instead of the "search engine." Wolfram Alpha is excellent at returning answers to mathematical queries and scientific queries.</p>	9+	<p>If you are a teacher of math and science, this app has a great deal to offer both teacher and students. Clearly, student queries can be simple or very complex. Thus, this app is a tool that any student can use to get customized results: below-grade-level, on-grade level or far-beyond grade level.</p>
<p><a href="#">Alge-Bingo</a> \$0.99</p>	<p>Develop your algebraic equation solving skills through playing a Bingo game. This game will take you step by step through the process of learning how to solve the most basic equation up through multiple-step equations by way of 13 different levels and it will allow you to choose from a variety of Bingo games from straight-line Bingo through multiple patterns of Bingo all the way up to Black-out Bingo if you choose. The app includes a</p>	2+	<p><b>Alge-Bingo</b> takes the classic math bingo game and applies it to simple algebraic equations. With 14 levels that increase in difficulty, nine different bingo-type games (straight lines, corners, blackout etc.), and two themes (human or robot), this app is pretty versatile and lends itself to differentiation. This app doesn't teach the conceptual understanding needed to tackle the problems; it is focused on solving practice problems.</p>

	<p>timer and keeps track of the scores of multiple players.</p>	<p>The first level – Addition with + Answers includes the first solving for the unknown type problems. These look like <math>x+7=8</math>.</p> <p>As the levels increase in difficulty with the addition of negative numbers and other operations – subtraction, multiplication, and division. The final level offering a mix of all the previous levels.</p> <p>This game is great for Pre-Algebra and Algebra I students who are just learning how to solve equations as well as for Algebra II and even Precalculus students needing to review their equation solving skills. It can also be used an Algebra tutorial for anyone preparing for a standardized test such as the S.A.T. or A.C.T.</p>
<p><a href="#">SketchExplorer</a> Free</p>	<p>Drag, manipulate and animate visual mathematics to develop and generalize students' understanding of fundamental concepts across elementary math, geometry, algebra, trigonometry, calculus, and beyond. Based on the award-winning software The Geometer's Sketchpad®, the Sketchpad Explorer app allows the user to interact with, and investigate, any document created in Sketchpad.</p> <p>Numerous Sketchpad documents offer mathematical activities, investigations, and interactive visualizations covering a comprehensive range of topics, for learners from kindergarten through university. Far from offering only repetitive and narrow drill, Sketchpad environments encourage deep conceptual understanding and broad mathematical meaning-making.</p> <p>Sketchpad Explorer includes iPad®-specific activities and workbooks for:</p> <ul style="list-style-type: none"> <li>• elementary mathematics (Grades 1-6)</li> <li>• early algebra (Grades 7-9)</li> </ul>	<p>If you have students who need to “see” mathematics in action to understand an idea, theorem or equation, then SketchExplorer may be the tool for you. This animation app provides an alternate way for students to understand a variety of elementary mathematics ideas, algebraic equations, and geometric principles.</p> <p>Why teach with Sketchpad: <a href="http://www.keycurriculum.com/products/sketchpad">http://www.keycurriculum.com/products/sketchpad</a></p> <p>How teachers use Sketchpad: <a href="http://www.weareteachers.com/partners/key-curriculum/videos/item/24729-sketchpad-snapshots">http://www.weareteachers.com/partners/key-curriculum/videos/item/24729-sketchpad-snapshots</a></p>

	<ul style="list-style-type: none"> <li>• geometry (Grades 9-10)</li> </ul> <p>Has gotten mixed reviews.</p>		
<b>ENGLISH/LA</b>			
<a href="#">Dragon</a> (Free)	Talk to text	K-12	Use this app to translate speech to text for special needs and ESL students of all ages; can be many times faster than typing.
<a href="#">Demibooks Composer</a> (Free)	Demibooks® Composer is the world’s first iPad-based authoring software for creating interactive books. Create your own book apps with realistic physics, animation, images, text, sounds, movies and visual effects.	K+	This app allows each student to create his or her own customized stories.
<a href="#">Free Books</a> (Free)	Free Books unlocks a world of public domain content, allowing you to acquire the great books of human history, letters of leaders, the collected works of geniuses, the finest Victorian novels, the plays of Shakespeare, the philosophy of Seneca and Marcus Aurelius, the autobiographies of Benjamin Franklin and Andrew Carnegie. Over 23,469 classic books.	6+	This app has a wide variety of applications: extensions for on-grade level and high-level students in English and social studies; tiered assignments, anchor activities, and extensions.
<a href="#">ICDL Books</a>	International Children’s Digital Library (ICDL) brings a collection of children’s books to the iphone and ipad. The largest collection of its kind, it contains children’s books from over 60 countries , classified by a variety of categories: ages 3-5, 6-9, 10-13; languages; short books, medium books, long books; award-winning books; fairy tales and folk tales	K+	This app can be used to differentiate by grade level, language spoken and/or student interest.
<a href="#">Story Kit</a> (Free)	Story Kit (from ICDL) allows children of all ages to create their own books. Students can take pictures, type text, record their voices, and draw pictures and write words. However, it is not interactive as Demibooks Composer. The pictures and text are static and participation from the reader is minimal. This application is available on a	K+	This app allows each student to create his or her own customized stories.

	wider range of devices than <i>Demibooks Composer</i> .		
<a href="#">SAT Word Lite</a>	This trial version has the same features as the full version and includes a sample set of 26 SAT words.	7+	This app is a great activity for an anchor station at the secondary level. It can provide assistance for struggling and on-grade level learners. Finally, it could be considered for advanced middle school students.
<b>OTHER</b>			
<a href="#">Art</a> (0.99)	This is a great app for learning about priceless masterpieces. With many pieces in the collection, some artwork features the human form. Teachers will need to use their best judgment on these works.	6+	This app can be a source for integrating art across disciplines and time periods. It could also be used to extend learning for advanced students or heighten interest about history and art for diverse middle school students.
<a href="#">Inspiration Maps</a> (Free version=5 maps; full version: \$14.99)	Inspiration Software, a developer of mind mapping software for education and one of the pioneers of this type of program, has released an iPad app called Inspiration Maps. It offers a perfect set of features for teachers who want to incorporate visual thinking into their curricula, but it's a little light weight as yet. Released in April, 2012.	3+	This app is a resource for visualizing content and thinking skills for all students.