Resources for the Library, Classroom, and Beyond

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The MATHIGON website and ebook app is intended to bring mathematics alive for youth.

The Library contains an amazing open and interactive eBook that is available online and as a mobile app. It presents mathematical ideas using animations, slideshows, games, and computations. This colorful, highly illustrated eBook will bring mathematics alive for readers. Links on the website’s entry page image go directly to sections of the eBook for topics such as Dimensions and Distorions, Graph Theory, and Fractals.

The Teachers area includes engaging math activities including a mathematical treasure hunt for the primary or secondary grades. The lessons and activities are available as downloadable PDF files. Some areas of the website are still in development.

The Developers area provides open source JavaScript libraries that power the Mathigon website. These resources could be used by high school students to build their own engaging online materials.

To visit the website, go to http://mathigon.org/.

JON SCIEszKA’s author website is a wacky, wonderful place for youth to explore his life and his works.

Kick off your exploration by reading “A Welcome Message from the President.” Youth will enjoy his “annual report,” too.

Jon’s Bio page contains a biographical sketch with hyperlinks to more information. Be sure to check out his interesting infographics.

The Books page provides book covers and descriptions of his works. In addition, it links to his series books including Time Warp Trio, Trucktown, and Spaceheadz.

The Guys Read website provides fun activities and information about books of interest to boys.

The Gallery features images including Scieszka’s family and information about the author’s writing process.

The News and FAQs pages provide lots of other interesting insights. There’s even an “Official Online How-to-Say-Jon-Scieszka Pronunciation Guide.”

Librarians will find endless ideas for an author display featuring Scieszka. Consider printing some of his infographics and pairing them with examples of his books. This is a great website to get reluctant readers interested in this amazing author.

To learn more, visit the website at http://jsworldwide.com/.

To visit the Time Warp Trio website, go to http://www.time-warp trio.com/.

To visit the Spaceheadz in Action website, go to http://spaceheadz.com/.

To visit the Guys Read website, go to http://guysread.com/.
The EXPLORE 9/11 app from the National September 11 Memorial and Museum is a guide to understanding the history of the World Trade Center and the 9/11 tragedy.

The app contains three features including a map mode, story mode, and tribute mode. Rotate your device to switch between the map and story modes.

The Map Mode allows users to explore the map of the Memorial plaza and museum. Tapping on hotspots provides access to videos, photographs, and other images. Audio recordings from first responders and survivors are also included.

The Story Mode lets users explore chapters with background information about the history of 9/11 and the artifacts housed in the museum.

The Tribute Mode provides a place where users can leave a message.

Librarians will find this to be a powerful virtual field trip for students and their teachers. Consider designing pre- and post-app experiences that encourage youth to ask questions, explore content, then debrief the experience.

To download the app, go to https://itunes.apple.com/us/app/explore-9-11/id387986451

The WORLD UNDER WATER website provides visualizations of what coastal regions will look like with rising sea levels.

The premise is simple. What’s the impact of rising sea levels? The website provides 360 views of a dozen well-known locations that may be impacted by rising sea levels at some point in the future. Viewers are invited to examine a preview of things to come.

Users are invited to enter an address or city to see what the area will look like in the future.

The Take Action area provides tools for calculating your emissions, offsetting your carbon footprint, and supporting a green project.

BEYOND PENGUINS AND POLAR BEARS is an online science resource for educators.

Produced by The Ohio State University, the resource focuses on preparing elementary educators to teach polar science concepts in an inquiry-based learning environment. Twenty thematic topics explore both the Arctic and Antarctica.

Each theme includes professional learning resources, science and literacy materials, stories from researchers and connections across the curriculum. These resources are aligned with the National Science Education Standards.

The Stories of Students section links to feature stories for specific grade levels including K-1, 2-3, and 4-5. These resources are excellent for informational reading activities.

A dozen podcasts tackle common misconceptions related to the poles. These would be excellent for listening activities.

Web seminars and print-on-demand resources are also available to extend the experience.

The Polar Pinterest social media site is used to share interesting visuals related to the polar regions including plants, animals, icebergs, and more.

Librarians will find a wealth of resources to connect children with information about the polar regions. Connect these informational and instructional resources with the science curriculum and extend the experience with your nonfiction collection. The website’s emphasis on inquiry-based learning fits well with the AASL Standards.

The NATIONAL GALLERY OF ART’s website and apps provide a wealth of resources and activities for youth of all ages.

The website Education area provides access to areas including Teachers, NGAKids, Families, and Teens.

The Teachers area is a place where educators can connect to useful educational resources including lesson plans, teaching packets, and videos. Teachers can also download posters and artwork. The NGA Images link provides access to 45,000 open access digital images for use in teaching and learning.

The NGAKids Art Zone includes over a dozen engaging art interactives for children including Sea-Saws, Brushster, Faces & Places, Jungle, Still Life, Dutch House, Photo Op, Collage Machine, Flow, Paintbox, Swatchbox, Wallovers, 3-D Twirler, Mobile, and Pixelface. These easy-to-use online learning activities focus on art and art history.

Eight of these interactives are also available through the NGAKids Art Zone mobile app. There’s also an app focusing on the Hobby Horse exhibit.

The Adventures in Art area of NGAKids
Art Zone features highlights of the collection presented in a kid-friendly, interactive style.

The Families area contains resources of interest to youth of all ages. An Eye for Art is an online resource that explores 50 artists in the collection and Family Guides online booklets share insights into the collection.

The Teens area provides links to current exhibitions and installations. It also connects with audio and video programs associated with art and art history. Many of the interactives from the kids section would be of interest to teens, too. The Your Art app provides information about over 130 popular artists and their works.

Librarians will find a wealth of resources for use in the art curriculum. Also, consider this resource when designing STEAM activities that connect art with science, technology, engineering, and math. Weave artwork into social studies and history classes through the use of the NGA Images collection.

To learn more, go to http://www.nga.gov.

The EDHEADS website provides a wealth of interactive educational resources for all ages.

The website contains a wide range of STEM (science, technology, engineering, math) activities.

Resources for elementary and middle school youth include Simple Machines, The Compound Machine, Weather, and Design a Cell Phone.

Resources for middle and high school youth include Trauma, Deep Brain Stimulation, Virtual Knee Surgery, Choose the Prosthetic, Virtual Hip Replacement, Virtual Hip Resurfacing, and Aortic Aneurysm Surgery.

Resources for high school students include Sickle Cell DNA, Crash Scene, Stem Cell Transplant, Stem Cell Heart Repair, and Nanoparticles and Brain Tumors.

The Teacher Resources section encourages educators to participate by exploring materials teachers have created to go with the interactives as well as the opportunity to share ideas.

Librarians will find these high-quality interactives to be popular with both students and teachers. The online activities are attractive, engaging, and educational.

To learn more, go to the website at http://edheads.org.

The CANADIAN GEOGRAPHIC KIDS section of the website provides easy-to-use comic strip generator.

The comic creator is now available as an App through iTunes.

To create a comic, go to http://www.makebeliefscomix.com/Comix/.

To download the app, go to https://itunes.apple.com/…/…/make-beliefs-comix/id795026580/.

The MAKEBELIEFS.COMIX website (and app) provides an easy-to-use tool for creating comic strips.

Two, three, or four panel comics can be created. Users begin by naming their comic and providing their name. Next, youth add characters, words, objects, backgrounds, and talk/thought balloons to the panels. Users can change the background color too. Sidebar tools allow creators to scale, bring to font, and flip elements. Comics can be printed or emailed.

In addition to the tool itself, other resources are provided including materials for teachers, special needs, and ESOL/literacy. Writing prompts and tools are also available. Free e-books provide lots of classroom ideas.

Librarians will find endless uses for this easy-to-use comic strip generator.

The CANADIAN GEOGRAPHIC KIDS is a website designed to help users explore the geography, history, and wildlife of Canada.

Part of Canadian Geographic, the kid’s section focuses on resources of interest to youth.

The Animal Facts area provides information about dozens of animals that can be accessed by species or the province where they are found. A web page is provided for each animal and the entire collection can be downloaded as a PDF file.

The Games section includes activities related to the environment, maps, animals, and nature. Screensavers and wallpaper can also be downloaded.

The Fun Facts page contains statistics, information, flags, and maps associated with Canada.

The Maps section provides access to the Canadian Atlas Online, award-winning maps, interactive world maps, historical maps, and other fascinating geography resources.

For older children, make use of the entire Canadian Geographic website including the magazine, atlas, mapping tools, travel information, photo section, and blog.

To extend the experience use their links to other geography websites. Also, connect to their social media presence such as Twitter.
Librarians will find this website an excellent starting point for discovering information about Canada. It’s also useful for a wide range of projects related to animals, science, nature, geography, and history.

To learn more, go to http://www.canadiangeographic.ca/kids/.

**EARTHVIEWER** is a fascinating, interactive app from the Howard Hughes Medical Institute that allows users to explore the science of Earth’s history.

Through timelines and visualizations, students can see the continents grow and shift, as they scroll through billions of years of Earth’s history. Users can zoom into their favorite landmark and follow how it changes through time. Layers allow users to view data on atmospheric composition, temperature, biodiversity, day length, and solar luminosity.

Part of the HHMI’s BioInteractive initiative, the app opens with the option to take a short tutorial or jump right into the program. Users pinch out or in to switch between timeline views. The three main timeline views include phanerozoic (540 million years), deep history (4.6 billion years), and modern (100 years). Suggested areas to explore contain place markers such as cities, fossils, impact events, mass extinctions, biological events, and geological events. In-depth options include text and illustrations about topics such as the greenhouse effect and plate tectonics.

Librarians will find endless applications for this resource. Students can start with a modern city and track it back through time. Or, follow a famous fossil as it moves through time. Collaborate with the science teacher to build connections with the library’s science collection including books on prehistoric creatures, fossils, plate tectonics, and other curriculum-related topics.

The accompanying website also includes data files, classroom activities, worksheets, video clips, and a downloadable version.

To learn more, go to http://www.hhmi.org/biointeractive/earthviewer.

**WILL HOBBS** is an award-winning author of picture books and young adult novels with a rich website for young fans. Hobbs writes outdoor adventures about places in the wild. With more than twenty books published, reader fans will enjoy learning more at his author website.

The website includes a biography in the Meet Will Hobbs section. There are lots of photos embedded throughout the site. Use the website to learn about his growing up, his family, and his writing. In the Will’s Books section of the website, users can click on a book cover and read an interview about each title. The author tells where he got his ideas and shows photos of his own adventures. There is a story summary plus information about awards and audiobooks for each title.

Don’t miss the Favorite Questions section and learn more about Will’s life, family and his writing. Most of the content is aimed at his young adult readers, but there is also a section for teachers and librarians. Here he suggests some curriculum resource materials and provides contact information about having him come to speak.

Will Hobbs is a favorite of many teen readers. Librarians can use this site to promote his books and extend student’s experience with his work.

Learn more at http://www.willhobbsauthor.com/

The **STOPBULLYING.GOV** website provides a variety of useful resources to help educators develop programs to prevent bullying.

Managed by the U.S. Department of Health and Human Services, the website contains major sections including “what is bullying,” “cyberbullying,” “who is at risk,” “prevent bullying,” “respond to bullying,” and “get help now.” The content includes definitions, examples, statistics, strategies, and additional information.

In addition, there are sections specifically aimed at parents, educators, community members, teens, and kids. The website blog and newsroom contains up-to-date information and resources including articles, research findings, and strategies.

Of particular note are the media sections. The images page contains appealing photos and infographics that could be used in library displays. The video page includes dozens of short videos focusing on specific issues such as LGBTQ bullying and cyberbullying.

For youth working on research projects related to bullying, the resources page and policies and laws page would be particularly useful.

Kick off the school year with a library promotion that encourages friendship and positive relationships. Weave in resources to help young people address the issue of
LIFE WITH A TWIST


Korman, Gordon. *Ungifted*. Balzer and Bray, 2012. 280 p. $16.99. ISBN: 9780061742668. Grades 4-8. After Donovan’s latest unthinking action gets him in hot water, he’s transferred to his district’s gifted school, where he decides to hide out by faking a high IQ. How hard can it be? Well, there’s nothing easy about normal meeting genius….


BOOKOPOLIS is a website designed to ignite a passion for reading in children ages 7-12.

Intended to build a community of readers, this social network provides a safe environment for elementary and middle school youth to connect with other book lovers. Youth can find books to read as well as share their book reviews.

Students can explore new books, create a bookshelf, share with friends, and earn points. The website also offers book suggestions and features new releases.

In addition to being a resource for children, the website also provides resources for teachers and librarians including lesson ideas, book recommendations, and standards connections. Educators can sign up for a teacher account to set up classes.

To explore the website, go to https://www.bookopolis.com.

TEEN INK is a website that encourages youth to express themselves through poetry, essays, stories, reviews, art, and photography.

For more than 25 years, the nonprofit group The Young Authors Foundation has provided a website, magazine, and books all written by teens for teens. Aimed at young adults ages 13 through 19, the website works with English and Art teachers to encourage teens to submit their work for publication.

The website is divided into nine sections.

The Fiction section includes action-adventure, fan fiction, historical fiction, realistic fiction, romance, sci-fi/fantasy, scripts/plays, and thriller/mystery.

The Nonfiction section is divided into types such as memoir, interviews, and essays. There’s also a hot issues section with topics such as bullying, environment, and health.

The Reviews section provides book, movie, music, TV, and video game reviews. Summer program and college reviews are also posted.

The Forums section provides two areas for youth to interact. There’s a writer’s workshop as well as regular forums.

The Art/Photo section posts artwork by theme and the Video section posts video work by theme.

The Summer Program section helps youth identify summer programs of interest across subject areas and the College Guide section features resources to help youth learn about college and university options.

In addition to the main sections, a Submit Work area provides guidelines and suggestions for youth wishing to submit their work, a Contests area features opportunities across writing and art genre, and the Other Teen Ink Goodies links provide many additional resources and opportunities.

Teen Ink also features a Library Advisory Board that serve as volunteer liaisons and advisors. This is a great way to get involved at the national level.
Finally, be sure to make use of the many social media features infused into the website including Facebook, Twitter, and YouTube.

Librarians may wish to suggest this website to youth seeking to get their work published. It’s also a great source for short creative and nonfiction works for reading activities.

To learn more, go to the website at http://www.teenink.com/.

The DRAGONBOX 5+ and DRAGONBOX 12+ apps are a unique and engaging way to teach algebra.

The learner-centered approach focuses on discovering algebraic operations without the stress of direct instruction.

Users begin by choosing an avatar. A levels page is displayed showing 20 levels that can be unlocked for the first “chapter.” Children start with the first level and are provided with some basic visual instructions. Students won’t even realize they’re learning the basics of algebra.

The mixture of quirky characters and highly-interactive game activities make this app extremely appealing to students. Because it looks and plays like their favorite games, they’ll immediately be drawn into the format.

What makes their approach distinct is that the game isn’t separate from the instruction. It’s truly an example of gamification. In other words, game-design and mechanics are used to engage learners in solving problems and learning concepts.

The first DragonBox Algebra is designed for ages 5 and up and the second is for middle and high school students. A parent/teacher guide can be downloaded along with a walkthrough and rules to help learners succeed. Worksheets are also available.

DragonBox would be a great addition to the school library and math classroom collection. It would be particularly useful for reluctant learners and students having difficulty understanding the basics of algebra. The high-fun, low-stress environment is perfect for students who proclaim that they hate math.

To learn more about the app, go to http://www.dragonboxapp.com/.

Published by WeWantToKnow.

NBC LEARN is a website focusing on news and information of interest to K-12 students.

Thousands of standards aligned stories have been digitized from the NBC News archives dating back to the 1920s. Both subscription-based and free resources are available.

The subscription-based option is connected with the Pearson Online Learning Exchange (OLE).

The free resources include over a dozen video projects. While some collections focus on event-specific topics such as Pi Day, the Summer Olympics, and the Winter Olympics, others are connected to sports topics of interest such as the Science of Golf, Hockey, and Football. Topics specific to science include water, innovation, chemistry, and climate change.

History topics include a video series on the Civil Rights Era and one on the Titanic.

The Writers Speak to Kids is a video series containing over a dozen interviews with award-winning authors talking about the craft of creative writing. Librarians will be specifically interested in these short, quality videos.

To learn more, go to http://www.nbclearn.com/portal/site/learn.

STINKS, BANGS & BOOMS: THE RISE & FALL OF THE AMERICAN CHEMISTRY SET is a website that provides a fascinating look at the history of this beloved resource.

Sponsored by the Chemical Heritage Foundation, this award-winning website uses an interactive timeline to explore the inception, heyday, decline, and resurgence of the American Chemistry Set.

The amazing story is told through the use of historical drawings, photographs, text, narration, and music. Interactive elements and mini-games keep readers interested. Users have the opportunity to learn more or move on to the next section.

A particularly interesting activity involves exploring chemistry sets from different time periods.

Users can listen to the stories of people who grew up with a chemistry set and participate can even record their own stories.

Librarians will find lots of uses for this amazing website. It’s an exciting way to discuss timelines and the idea of change over time. Involve youth in analyzing their favorite toy such as the history of LEGO. It’s also a fun way to bring historical photos and other primary sources to life. Consider creating a display that shows a chemistry set and labels the variety of parts. Also include books of science experiments that youth can try at home.

To explore the website, go to http://chemistryset.chemheritage.org.