**Education Digital Resources** 

Google Classroom

Zoom: Online face to face meeting area for groups <a href="https://zoom.us/home?zcid=2478">https://zoom.us/home?zcid=2478</a>

https://digitallearningday.org/digital-tools/

https://digitallearningday.org/online-resources/

https://digitallearningday.org/interactive-lesson-plans/



CommonLit NewsELA

**FreeRice.com** - This UN World Food Program site teaches civic responsibility while quizzing visitors on everything from English grammar and vocabulary to chemical symbols and prealgebra. For every multiple choice trivia question that site visitors answer correctly, the UN donates ten grains of rice to help feed the hungry.

**Book Adventure** - Book Adventure is a free online reading program that welcomes children in grades K-8. The goal of the program is to get kids to read more and improve reading comprehension. Site visitors can use the site to create their own book lists, get reading recommendations, take quizzes on books they have read, and earn points and prizes for reading efforts.

**Bookwink** - Created for students in grades three through eight, Bookwink publishes short audio podcasts and videos designed to get kids excited about reading. The site offers book recommendations by subject, grade level, author, or title.

**Read Print** - Read Print is a free online library that contains thousands of novels, poems, plays, and stories in the public domain. Site visitors can search for books by author, title, or genre.

**Book Builder** - Middle schoolers who visit this site can create, publish, and share their own digital books online. They can also read free digital books created by other people.

## **Literature (Web Resources)**

## Download 20 Popular High School Books Available as Free eBooks & Audio Books:

Gives you access to classic texts frequently taught in the classroom. Includes works by Mark Twain, George Orwell, Aldous Huxley, Jane Austen, F. Scott Fitzgerald and more.

**A Crash Course in English Literature**: A new video series by best-selling kids author John Green covers Shakespeare, Fitzgerald, Salinger, and Emily Dickinson and more. See our post on this series.

**Folger Shakespeare Library**: Offers a world of online resources for teachers -- from lesson plans to study guides to videos -- for teaching Shakespeare on the K-12 levels.

**Google Lit Trips**: This site provides free downloadable files that mark the journeys of characters from famous literature on the surface of Google Earth. We offer more details here.

**International Children's Digital Library**: Provides free access to high-quality digital books from around the world. Offers books for kids 3-5, 6-9, and 10-13. Start browsing the library here.

**Lit2Go's Audio Books**: The University of South Florida provides an extensive collection of free audio books along with materials to help K-12 teachers present literature in the classroom. Find more information on our blog here.

**Poetry Archive**: Search the Poetry Foundation's archive of over 10000 poems. Searchable by poet, title, first lines and more.

**Shakespeare's Plays**: If you're looking for Shakespeare's plays on the web, MIT has you covered. They offer the Web's first edition of the Complete Works of William

Shakespeare. If you're looking for a nice collection for the iPhone/iPad, Oxford has you covered. They offer the first complete collection of Shakespeare's plays, from the First Folio of 1623, in their original spelling and orthography.

**Shakespeare's Plays Animated**: The Animated Shakespeare brings to life 12 famous Shakespeare plays. Leon Garfield, a well-known British children's author, wrote the scripts, mainly using Shakespearian language. And some talented Russian artists did the animation. You can find free copies of Shakespeare's plays in our collections of Free Audio Books & Free eBooks.

**Shmoop Learning Guides**: Shmoop's learning guides break down some of the texts most frequently taught in high school classrooms. Everything from Mark Twain to Ayn Rand to Shakespeare.

**Invitation to World Literature**: A multimedia course for students, teachers, and lovers of literature. The course moves from ancient to modern literature, and is taught by David Damrosch at Harvard. Find more details here.

#### Free Audio Books, eBooks and Textbooks

**Free Audio Books**: Our collection of 450 free audio books includes many children's classics. The Wizard of Oz, Grimm's Fairy Tales, The Adventures of Huckleberry Finn and Mark Twain, The Chronicles of Narnia by C.S. Lewis, The Swiss Family Robinson, Gulliver's Travels, Anne of Green Gables, Aesop's Fables, The Wizard of Oz series, and much more. You can download audio files straight to your computer or mobile device.

**Free eBooks**: This collection includes many children's classics in ebook format. You generally have the option to download these texts to your Kindle, iPad, Nook or computer. Video tutorials are included on the page. You may also want to visit our

resource: Download 20 Popular High School Books Available as Free eBooks & Audio Books.

**Bartleby.com**: Gives you access to free online classics of reference, literature, and nonfiction, including Strunk & White's Elements of Style, The World Factbook, The Oxford Shakespeare, and The King James Bible.

**Calibre**: Download free e-book software that will manage your electronic library, convert e-books from one format to another, and give you online access to free e-books. We have more on it here.

**CK-12**: This non-profit provides "open textbooks" for K-12 students all over the world. It offers free high-quality, standards-aligned, open content in the STEM subjects (science, technology, engineering, and mathematics).

**ePubBud**: Makes available free children's books for the the iPad, Nook, Kindle and other ereaders. Begin browsing books here, and find instructions here.

**International Children's Digital Library**: Provides free access to high-quality children's books from around the world in different languages, including Arabic, Afrikaans, Danish, English, Farsi and beyond. Hosts books for kids 3–5, 6–9, and 10–13. Start browsing the library here.

**Librivox**: A favorite of ours, Librivox provides free audio books from the public domain. You will find 5000+ books in their catalogue.

**OER Commons**: Discover a meta collection of free textbooks that can be sorted by subject and grade level.

**Project Gutenberg**: The mother of all ebook sites hosts 40000 free ebooks, and makes them accessible for Kindle, Android, iPad, and iPhone.

**The Harvard Classics**: Harvard's influential president, Charles W. Eliot, said that if you spent just 15 minutes a day reading the right books, you could give yourself a proper liberal education. He published a 51-volume series, now known as *The Harvard Classics*, and they're available free online. Ideal for the older student.

**Free Textbook Collection**: Our site provides a meta collection of free textbooks available on the web. It covers everything from Art History to Biology, Math, Physics, and Psychology.

# Math

**ALEKS** 

EVERFI: everfi.com

# **Mathematics (Web Resources)**

**AAA Math**: Features a comprehensive set of interactive arithmetic lessons.

Unlimited practice is available on each topic which allows thorough mastery of the concepts. You can sort by grade level. K-8.

**Against All Odds: Inside Statistics**: This resource shows students the relevance of statistics in real-world settings. Video series for high school and college classrooms.

**Algebra: In Simplest Terms**: A step-by-step look at algebra concepts. This instructional video series for high school classrooms is produced by the Consortium for Mathematics and Its Applications and Chedd-Angier.

**Calculus Lifesaver**: Adrian Banner, a lecturer at Princeton, has put together a lecture series (in video) that will help you master calculus, a subject that has

traditionally frustrated many students. The 24 lectures are available on iTunes. It's worth noting that Banner has used the lectures to develop a handy book, The Calculus Lifesaver: All the Tools You Need to Excel at Calculus.

**IXL**: Site features thousands of exercises designed to help young students (K-8) practice math. Features practice questions, step-by-step explanations, engaging awards and certificates, easy-to-read progress reports, and more.

**Khan Academy Math:** You can dive into the Khan Academy's math tutorials using the following links: Arithmetic and Pre-Algebra, Algebra, Geometry, Trigonometry, Probability, Statistics, Precalculus, Calculus, Differential Equations, Linear Algebra, Applied Math, Brain Teasers, and Vi Hart Animations.

Math Shack: Created by Shmoop, Math Shack allows students to practice an infinite number of auto-generated math problems in Pre-Algebra, Algebra, and Geometry. It's Common Core-aligned, and students can see how they're performing—by topic and subject—through an easy color-coded system.

**NRICH**: The Nrich Math Project (based at Cambridge University) offers mathematics resources for children, parents and teachers to enrich learning. It provides resources for students of all ages.

**TutPup Math**: Helps young children gain confidence and mastery of basic educational skills. Its math section comes recommended by our readers.

Wolfram MathWorld: Bills itself as the web's most extensive mathematical resource. Designed for more advanced students, this collection is provided as a free service by Wolfram Research, makers of *Mathematica*. Topics covered include: Algebra, Applied Mathematics, Calculus and Analysis, Discrete Mathematics, Foundations of Mathematics, Geometry, History and Terminology, Number Theory, Probability and Statistics, Recreational Mathematics, and Topology.

# Science

https://mosamack.com/

https://www.commonsense.org/education/top-picks/terrific-websites-for-science

EVERFI: Online modules in science and STEM sponsored by the NHL

- Be a Spacecraft Engineer introduces students to elements of spacecraft design using the STARDUST spacecraft and the International Space Station as examples.
- Shedd Educational Adventures (SEA) features six aquatic science
  interactives covering grades K-12. Two Build-a-Fish and Squish the Fish) are in
  available in Spanish as well as English. Lesson plans and fact sheets are provided.

## Science (Web Resources)

**100,000 Stars**: An interactive visualization of—you guessed it—more than 100,000 stars. 100,000 Stars was created by Google using data from NASA and the European Space Agency. Before you experience the map, you will need to download the Chrome browser. We have more on it here.

**Ask an Astronomer**: In video format, scientists answer questions about the universe. For example, where is the center of the universe? What happens when galaxies collide?

**Atlas of the Universe:** Contains maps of the universe zooming out from the nearest stars to the entire visible universe.

**BioED Online**: An online educational resource for educators, students, and parents. Dedicated to biology, the site offers access to streaming video presentations and a slide library that features, among other things, exciting lesson plans and activities.

**Bugscope**: Lets K–12 students view bugs under a scanning electron microscope over the web. From the University of Illinois.

**BuiltByKids**: Encourages next generation of makers to tackle the do-it-yourself projects of their dreams. Engineering very 101.

**CELLS Alive!**: Brings together 30 years of computer-enhanced images of living cells and organisms for education and medical research.

**Chemistry Activities for Kids**: Features chemistry demonstrations, crafts, and projects that are suitable for kids. Some activities require adult supervision. Assembled by Anne Marie Helmenstine, About.com Guide to Chemistry.

**Digital Universe Atlas**: Developed by the American Museum of Natural History's Hayden Planetarium, with support from NASA, this digital atlas makes available the most complete and accurate 3D atlas of the Universe from the local solar neighborhood out to the edge of the observable Universe. Download it for free!

**Dynamic Periodic Table:** An interactive Web 2.0 periodic table with dynamic layouts showing names, electrons, oxidation, trend visualization, orbitals, and isotopes.

**Impact Earth!**: An interactive tool that lets anyone calculate the damage a comet or asteroid would cause if it happened to collide with our planet. You can customize the size and speed of the incoming object, among other items.

**Khan Academy Science**: You can explore the Khan Academy's science and technology lessons using the following hotlinks: Biology, Chemistry, Cosmology and

Astronomy, Healthcare and Medicine, Organic Chemistry, Physics, LeBron Asks, MIT+K12, Projects.

**NASA for Students**: America's space agency provides educational media for different age groups. See Grades K-4, Grades 5-8, and Grades 9-12.

**Eyes on the Solar System**: A 3-D environment lets you explore the cosmos from your computer, hop on an asteroid, fly with NASA's Voyager spacecraft, see the entire solar system moving in real time. Created by NASA.

**NASA Gateway to Astronaut Photography of Earth**: Brings together all images and videos of the Earth taken by NASA astronauts from space.

NASA Photo Archive: NASA curated a big archive of historical images into Flickr Commons, giving users access to more than a half century of NASA's photographic history. The images are divided into three neat sets – "Launch and Takeoff," "Building NASA" and "Center Namesakes" – and they're all copyright-free, meaning that you can share and use these images however you like.

**NIH Science**: The National Institutes of Health provides a collection of educational resources for science teachers. The material is divided by topic and grade level: High School, Middle School and Elementary School.

**Paleontology Portal**: This site is a resource for anyone interested in paleontology, from the student in the classroom, to the interested amateur scouting for fossils, to the professional in the lab. Funded by the National Science Foundation, the site was produced by the University of California Museum of Paleontology, the Paleontological Society, the Society of Vertebrate Paleontology, and the United States Geological Survey.

**Physics to Go**: A collection of websites where you can learn physics on your own, through games, webcasts, and online exhibits and activities. Features a collection of

more than 950 websites with physics images, activites, and info. Produced by the American Physical Society.

**Robotics**: Created by the University of Southern California, this web site is designed to help K-12 teachers and other educators in developing or improving courses that use robotics as a tool for teaching STEM topics or robotics itself. Robotics is a great way to get kids excited about science, technology, engineering, and math.

**Royal Institution Christmas Lectures**: Back in 1825, Michael Faraday, the venerated English scientist, established The Royal Institution Christmas Lectures for Children, hoping to get a younger generation interested in science, and the tradition has carried on ever since. You can watch the lectures presented by famous scientists online, including Richard Dawkins and Carl Sagan.

**Science Kids**: Provides educational resources for teachers and parents to help make science fun and engaging for kids. Features fun activities, facts, projects and experiments that promote a desire amongst kids to learn more about science and technology.

**Science News for Kids**: Helps kids (middle school and above) stay up-to-date on scientific trends. Provides crisp, concise coverage of all fields of science daily.

**TeachEngineering.org**: A searchable, web-based digital library collection populated with standards-based engineering curricula for use by K-12 teachers and engineering faculty to make applied science and math (engineering) come alive in K-12 settings.

The Habitable Planet: A Systems Approach to Environmental Science - A multimedia course for high school teachers and adult learners interested in studying environmental science. The Web site provides access to course content

and activities developed by leading scientists and researchers in the field. Jointly created by Harvard and the Smithsonian.

**The Known Universe**: This video takes viewers from the Himalayas through our atmosphere and the inky black of space to the afterglow of the Big Bang. The film is made with the Digital Universe Atlas (download it here) that is maintained and updated by astrophysicists at the American Museum of Natural History.

**Try Science**: A science education resource for children, parents and educators, featuring information for kids on science, science museums, and science fair project ideas. Created by a partnership with IBM, the New York Hall of Science, the Association of Science-Technology Centers, and science centers worldwide.

**Understanding Evolution**: Created for K-12 teachers, this online resource provides a one-stop, comprehensive resource on evolution. This site is a collaborative project of the University of California Museum of Paleontology and the National Center for Science Education.

**USGS Science Resources:** Assembled by the U.S. Geological Survey, this site brings together lots of resources that will teach students about Biology, Geography, Geology, Water, and more. The site is divided into a K-6 section and a grades 7-12 section.

**Physics Comic Books** - PhysicsCentral, a web site run by The American Physical Society (an organization representing 48,000 physicists), has created a series of comic books designed to get kids excited about physics. Among other comics, you can can read Nikola Tesla and the Electric Fair for free online.

**Gene Screen**: A fun way to learn how recessive genetic traits and diseases are inherited and why certain diseases are more prevalent in different populations.

Gene Screen also provides information on some recessive genetic diseases and genetic screening programs.

Google Sky Map: Sky Map enables users to identify stars and planets by pointing their devices towards these objects in the sky. Users can zoom in and out, and switch various layers such as constellations, planets, grids, and deep sky objects. Users can also determine the locations of planets and stars relative to their own current locations.

# SS

Where in the World and What in the World is Money? takes players to different times and places. As they get home, players learn about forms of exchange have been used as money.

# Geography (Web Resources)

**National Geographic**: Provides facts, photos, videos, and more about countries around the world -- something NatGeo knows a lot about.

**World Atlas**: An educational resource for world maps, atlases, and in-depth geography information. Provides teachers and students free maps of Europe, Asia, the U.S., Canada, Florida, the Caribbean Islands and much more.

World Data Atlas: Great source of world statistics on every country. Includes data on more than 2500 indicators. Topics cover Economics, Demographics, Health, Education, Energy and other socioeconomic information. Includes interactive visualizations like rankings, graphs and maps. All information can be exported and embedded onto the web. You can also access the site/app through the Google Chrome web store for free.

#### 1. NATIONAL ARCHIVES

The National Archives is a fantastic resource. Their website is easy to navigate and includes lots of teacher resources. They feature a daily historical document relating to an event from that day in history. The online catalog can be searched using keywords, and 100 "milestone" documents are identified as significant to American history.

#### 2. DOCSTEACH

Also run by the National Archives, DocsTeach is full of activities for educators. The documents are organized by different periods in American history. If you're teaching "Civil War and Reconstruction" or "Revolution and the New Nation," just click on the topic to find hundreds of primary source documents. DocsTeach provides audio, video, charts, graphs, maps and more.

#### 3. SPARTACUS EDUCATIONAL

Spartacus Educational is a great resource for global history. It contains free encyclopedia entries that directly connect to primary source documents, making it a perfect tool for educators looking to give students a starting point in their research. It can even be used for a historical figure scavenger hunt!

#### 4. FORDHAM UNIVERSITY

Fordham University is another good resource for global history. Similar to how DocsTeach organizes primary sources into periods of American history, this site categorizes documents as well. From the "Reformation" to "Post-World War II Religious Thought," teachers can find full texts available from Fordham or similar institutions. These sources are appropriate for the middle school and high school classroom.

#### 5. THE AVALON PROJECT

Broken down by time period then listed in alphabetical order, the Avalon Project at Yale University also has primary sources for global history teachers. This database starts with ancient and medieval documents and moves into present times. In addition to

categories that address specific historical periods, the Avalon Project includes links to human rights documents as part of Project Diana.

#### 6. LIFE MAGAZINE PHOTO ARCHIVE

Google and Life Magazine have a wonderful search engine that lets users search millions of images from the Life Magazine Photo Archive. Not only can you type in key terms to guide your searches, you can also look through images organized by decade (1860s through 1970s) or significant people, places, events or sports topics.

## **History & Politics (Web Resources)**

**50States.com**: Offers copious information about the fifty United States of America.

A Biography of America: This video series for high school and college students presents American history as a living narrative rather than a collection of facts and dates. Produced by WGBH Boston in cooperation with the Library of Congress and the National Archives and Records Administration.

A Crash Course in World History: Best-selling author John Green gives you a playful and highly visual crash course in world history, taking you from the beginning of human civilization 15,000 years ago through to our modern age. The videos are animated and fun. We have a few more details here.

**Abraham Lincoln at the Crossroads**: An educational game for advanced middleand high-school students. Learn about Lincoln's leadership by exploring the political choices he made.

**Ancient Web**: This site positions itself as the best online destination for information and resources related to the Ancient world. It includes educational videos, images and maps.

Ben's Guide to U.S. Government: A primer on American government for grades K-2.

**Bridging World History**: Created by Learner.org, this site offers multimedia materials designed to help learners discover world history. The material is organized into 26 thematic units, which include videos and an audio glossary.

**Democracy Web**: The site features an interactive world map and an online study guide for teachers. Designed for use with upper secondary- and lower college-level students, this resource provides an overview of the principles of democracy and their origins, as well as an examination of how a variety of contemporary political systems function.

Gilder Lehrman Institute of American History: The Gilder Lehrman Institute of American History is a nonprofit devoted to the improvement of history education. The GLI web site features video/audio with experts discussing various topics in American history. Don't miss their iTunesU collection with talks including: Famous Americans, American Presidents, The U.S. Constitution, The American Civil War, The Great Depression and World War II, Women in American History, Lincoln and the Civil War, and Slavery and Anti Slavery.

Google Cultural Institute: Google has built a robust, umbrella Cultural Institute to house 42 new online historical exhibitions. Each exhibit features, in Google's words, "a narrative which links the archive material together to unlock the different perspectives, nuances and tales behind these events." Topics currently covered include the Life and Times of Nelson Mandela, the Fall of the Iron Curtain, the Spanish Civil War, the Life of Anne Frank, D-Day, and Apartheid in South Africa. The Cultural Institute also gives you access to super high resolution images of The Dead Sea Scrolls.

Google Historical Voyages and Events: This site is dedicated to the explorers, voyages, events, and historical backgrounds of countries throughout the world, and uses Google technology to bring this history back to life.

**History and Politics Out Loud**: A searchable archive of politically significant audio materials for scholars, teachers, and students. It is a component of "Historical Voices," funded by the National Endowment for the Humanities in partnership with Michigan State University.

**History Matters**: Designed for high school and college students and teachers, History Matters serves as a gateway to web resources and offers other useful materials for learning and teaching U.S. history.

**iCivics**: Founded by Supreme Court Justice Sandra Day O'Connor, iCivics prepares young Americans to become knowledgeable and engaged 21st century citizens by offering free and innovative educational materials. iCivics has produced 16 educational video games as well as vibrant teaching materials that have been used in classrooms in all 50 states.

**Liberty's Kids:** An animated educational historical television series originally broadcast on PBS Kids. Teaches 7 to 14 year olds about the founding of the United States.

**The Living Room Candidate**: An archive of presidential campaign commercials from 1952 to the present, organized by year, type, and issue, with teacher resources and playlists created by experts.

**Teachinghistory.org**: This site is designed to help K–12 history teachers access resources and materials to improve U.S. history education in the classroom. Provides lesson plans and best practices. Funded by the U.S. Department of Education and the Center for History and New Media.

**The Internet History Sourcebooks**: This site features collections of public domain and copy-permitted historical texts presented cleanly for educational use. Hosted by Fordham University, this resource is broken down into sub-areas: Ancient History, Medieval, Modern, Byzantine Studies, African Studies, East Asian Studies,

Global Studies, India, Islamic, Jewish, Lesbian and Gay, Science, and Women's Studies.

What So Proudly We Hail: An educational resource about what it means to be an American, inspired by the anthology of the same title. Through a series of online conversations about classic American texts, award-winning teacher-scholars Amy A. Kass and Leon R. Kass seek to educate both hearts and minds about American ideals, American identity and national character, and the virtues and aspirations of our civic life.

**World History for Us All**: A powerful, innovative curriculum for teaching world history in middle and high schools. The site offers a wealth of teaching units, lesson plans, and resources. Ideal for anyone thinking about how to teach world history to students.

World Wonders Project: Created by Google, this valuable resource lets students virtually discover some of the most famous sites on earth -- for example, the ruins of Pompeii, Stonehenge, Versailles and more. It also lets you visit the Great Barrier Reef and Shackleton's Expedition in Antarctica. The project offers an innovative way to teach history and geography to students of primary and secondary schools. Teachers can download related guides for using these resources.

**Visualizing Emancipation**: A map of slavery's end during the American Civil War. It finds patterns in the collapse of southern slavery, mapping the interactions between federal policies, armies in the field, and the actions of enslaved men and women on countless farms and city blocks.

# OTHER RESOURCES/ONLINE TOOLS

#### 1. Edmodo

Edmodo is an educational tool that connects teachers and students, and is assimilated into a social network. In this one, teachers can create online collaborative groups, administer and provide educational materials, measure student performance, and communicate with parents, among other functions. Edmodo has more than 34 million users who connect to create a learning process that is more enriching, personalized, and aligned with the opportunities brought by technology and the digital environment.

#### 2. Socrative

Designed by a group of entrepreneurs and engineers passionate about education, Socrative is a system that allows teachers to create exercises or educational games which students can solve using mobile devices, whether smartphones, laptops, or tablets. Teachers can see the results of the activities and, depending on these, modify the subsequent lessons in order to make them more personalized.

# 3. Projeqt

Project is a tool that allows you to create multimedia presentations, with dynamic slides in which you can embed interactive maps, links, online quizzes, Twitter timelines, and videos, among other options. During a class session, teachers can share with students academic presentations which are visually adapted to different devices.

# 4. Thinglink

Thinglink allows educators to create interactive images with music, sounds, texts, and photographs. These can be shared on other websites or on social networks, such as Twitter and Facebook. Thinglink offers the possibility for teachers to create learning methodologies that awaken the curiosity of students through interactive content that can expand their knowledge.

#### 5. TED-Ed

TED-Ed is an educational platform that allows creating educational lessons with the collaboration of teachers, students, animators—generally people who want to expand knowledge and good ideas. This website allows democratizing access to information,

both for teachers and students. Here, people can have an active participation in the learning process of others.

#### 6. cK-12

cK-12 is a website that seeks to reduce the cost of academic books for the K12 market in the United States and the world. To achieve its objective, this platform has an open source interface that allows creating and distributing educational material through the internet, which can be modified and contain videos, audios, and interactive exercises. It can also be printed and comply with the necessary editorial standards in each region. The books that are created in cK-12 can be adapted to the needs of any teacher or student.

## 7. ClassDojo

ClassDojo is a tool to improve student behavior: teachers provide their students with instant feedback so that good disposition in class is 'rewarded' with points and students have a more receptive attitude towards the learning process. ClassDojo provides real-time notifications to students, like 'Well Done David!' and '+1', for working collaboratively. The information that is collected about student behavior can be shared later with parents and administrators through the web.

# 8. eduClipper

This platform allows teachers and students to share and explore references and educational material. In eduClipper, you can collect information found on the internet and then share it with the members of previously created groups, which offers the possibility to manage more effectively the academic content found online, improve research techniques, and have a digital record of what students achieved during the course. Likewise, it provides the opportunity for teachers to organize a virtual class with their students and create a portfolio where all the work carried out is stored.

# 9. Storybird

Storybird aims to promote writing and reading skills in students through storytelling. In this tool, teachers can create interactive and artistic books online through a simple and easy to use interface. The stories created can be embedded in blogs, sent by email, and printed, among other options. In Storybird, teachers can also create projects with students, give constant feedback, and organize classes and grades.

#### 10. Animoto

Animoto is a digital tool that allows you to create high-quality videos in a short time and from any mobile device, inspiring students and helping improve academic lessons. The Animoto interface is friendly and practical, allowing teachers to create audiovisual content that adapts to educational needs.

#### 11. Kahoot!

Kahoot! is an educational platform that is based on games and questions. Through this tool, teachers can create questionnaires, discussions, or surveys that complement academic lessons. The material is projected in the classroom and questions are answered by students while playing and learning at the same time. Kahoot! promotes game-based learning, which increases student engagement and creates a dynamic, social, and fun educational environment.

## **Foreign Languages**

**Open Culture Foreign Language Collection**: This list created by Open Culture offers free lessons in 40 different languages. You can generally download the mp3/podcasts to your devices.

**Destinos: An Introduction to Spanish**: This video instructional series for high school and college classrooms teaches Spanish speaking and listening skills. Produced by WGBH Boston.

**Deutsch – warum nicht?**: An extensive collection of introductory German lessons put together by Deutsche Welle. Part 1, Part 2, Part 3 and Part 4.

**French in Action**: Become fluent in French by exploring French culture in this well-known video series for high school and college classrooms. Produced by Yale University and WGBH Boston with Wellesley College.

**Ma France**: The BBC offers 24 video lessons that will teach you French.

**Real Chinese**: Presented by the BBC. A lively introduction to Mandarin Chinese presented in 10 short parts with video clips from the Real Chinese TV series.

Talk Italian: A lively introduction to Italian presented by the BBC.

**WatchKnowLearn**: This site has aggregated YouTube videos that will teach students new languages.

# **Video Lessons/Tutorials**

**iTunesU**: Apple provides hundreds of free courses, lectures and academic talks, mostly suitable for older students. The easiest way to access the courses available on iTunesU is to visit our collection of 550 Free Online Courses from Top Universities.

**Khan Academy**: The site famously features K-12 video tutorials created by Sal Khan and team. It currently gives students access to thousands of video tutorials that explain the ins-and-outs of algebra, geometry, trigonometry, calculus, statistics, finance, physics, economics and more. Videos can also be accessed via YouTube and iTunesU, or on the Khan Academy's website.

**Learner.org**: Run by The Annenberg Foundation, Learner.org hosts multimedia resources for teachers, students and lifelong learners. You can browse their general collection of educational videos here. Selected collections are cataloged below.

MIT-K12: Taking a page from Khan, MIT is now producing "short videos teaching basic concepts in science and engineering" for K-12 students. The videos are generally created by MIT students. You can sort the videos by topic and grade level. Find versions of these videos on iTunes.

**NeoK12**: Designated a "Great Site for Kids" by the American Library Association, this site provides educational videos, lessons, quizzes and educational games for K-12

students in various subject areas, such as science, math, health, social studies and English.

**The Kid Should See This**: This blog aggregates interesting, kid-friendly videos focusing on science, art, technology, and more. The videos weren't necessarily made for kids, but kids can get a lot out of them. That's the premise of the site.

**TED-Ed**: The maker of TED Talks now provides carefully curated educational videos or "lessons worth sharing." Topics range from Literature and Language, to Mathematics, to Science and Technology.

**Schoolhouse Rock**: Animated musical educational short films that aired during the Saturday morning children's programming on the U.S. television network ABC. The topics covered included grammar, science, economics, history, mathematics, and civics

**WatchKnowLearn**: This site has indexed over 33,000 educational videos from YouTube and placed them into a directory of over 3,000 categories. The videos are available without registration or fees to teachers in the classroom and to students at home 24/7.

**YouTube EDU**: A curated collection of educational videos from sources ranging from Sesame Street to Harvard. Created by YouTube itself.

**YouTube for Schools**: Containing a large collection of educational materials, this newish service also gives teachers and administrators the ability to filter out everything but their own selections from YouTube. In other words, you can separate the wheat from the chaff. Get more details here.

# **Art & Visual Culture (Web Resources)**

**Art Babble**: Sometimes called the "YouTube of the Arts," the site offers high definition video of art that ranges from classical to contemporary. It has partnered with many major museums and arts institutions.

**ArtThink**: Created by the San Francisco Museum of Modern Art, this site offers theme-based activities in visual arts, language arts, history and social studies. The site lets students investigate artists' work, lives, and their historical context.

Google Art Project: A new tool that gives you access to more than 1,000 works of art appearing in 17 great museums across the world. Using Google's Street View technology, you can now tour collections at 184 museums world wide, including the MoMA and Met in New York City, the Uffizi Gallery in Florence, the Hermitage in St. Petersburg, the Van Gogh Museum, and the Rijksmuseum in Amsterdam.

**SmartHistory**: Now folded into the Khan Academy, Smarthistory provides an extensive collection of audio and video introductions to works of art found in standard art history survey texts. You can find a complete collection of their videos on YouTube.

**Virtual Tour of the Sistine Chapel**: Thanks to Villanova University, you can take an amazing virtual, panoramic tour of the Sistine Chapel. Using buttons in the lower left screen, you can move around the room and zoom in on the paintings, including those on the ceiling.

# **Music (Web Resources)**

**A Child's Introduction to Jazz**: In 1961, Julian "Cannonball" Adderley, the jazz saxophonist best known for his work on Miles Davis' epic album *Kind of Blue*, narrated a children's introduction to jazz music. Features music by Louis

Armstrong, Duke Ellington, Coleman Hawkins, Thelonious Monk and Cannonball himself.

**Bach's Complete Organ Works**: They were recorded by Dr. James Kibbie (University of Michigan) on original baroque organs in Leipzig, Germany. Start with a collection of Favorite Masterworks, or get the complete works.

**Bach's Goldberg Variations:** You can download and share the newly-released recording by Kimiko Ishizaka, performed on a Bösendorfer 290 Imperial piano in Berlin. You can do pretty much whatever you want with the recording because it's released under a Creative Commons Zero license, which automatically puts things in the public domain.

**Classics for Kids**: Introduces elementary and middle school children to classical music in a fun and entertaining way. The site gives you access to famous pieces of classical music online and also related lessons plans and activity sheets.

**Exploring the World of Music**: Learn the essentials of music theory and how music expresses culture in this instructional video series for high school classrooms.

**K-12 Resources for Music Educators**: Valuable resources for music educators and music students at all educational levels. Carefully researched and commercial free.

The Alan Lomax Sound Archive: This huge treasure trove contains folk songs collected by the legendary folklorist Alan Lomax from the 1940s to the 1990s, as well as interviews recorded by Lomax. The collection has been digitized and made available online for free listening. Gives you access to 17,000 songs. More details here.

**The World Music Archive**: Run by the BBC, this archive allows you to sample the musical traditions of more than 40 countries. India, Corsica, China, Cuba, Iran,

Brazil, Mozambique, Turkey -- they're all represented in this eclectic collection of indigenous music.

# **Philosophy (Web Resources)**

**Philosophy for Kids**: Dedicated to helping adults conduct philosophical discussion with elementary school children, this site uses well known picture books to raise philosophical questions -- for example *Harold and the Purple Crayon*, *Harry the Dirty Dog*, *The Cat in the Hat*, various *Frog and Toad stories* and much more. The site is run by Tom Wartenberg at Mount Holyoke.

**Philosophy for Kids!**: This site given the same name as the one above is run by Gary Matthews, Professor of Philosophy at the University of Massachusetts, Amherst. It also uses children's stories to introduce students to philosophical questions.

**Philosophy for Children**: A non-profit organization affiliated with the University of Washington Department of Philosophy, the Northwest Center for Philosophy for Children provides lesson plans for using children's literature to introduce philosophy, activities for engaging children in philosophy, and tips for successful pre-college philosophy sessions.

# **Technology (Web Resources)**

**Codecademy**: This venture gives students the ability to take free computer science lessons online. Teaches everything from HTML basics to Python in a "user active" style. We have more details here.

**Google Code University**: This Google site provides course content and tutorials for Computer Science (CS) students and educators on current computing technologies and paradigms. It covers HTML, CSS, and Javascript from the Ground Up, Python and more.

**Computer Science Courses from Great Universities**: The more advanced student can watch lectures from computer science courses presented at great universities.

**Khan Academy Technology**: Find lessons in Drawing & Animation and Programming Basics.

## Educational Apps (Mostly for iPhone/iPad)

**Aesop's Fables Interactive Book**: The Library of Congress has released a free app for use on iPhones, iPads and Android platforms. This innovative reading experience has been adapted from the 1919 book *The Aesop for Children*, and includes outstanding drawings by Milo Winter, a noted illustrator.

**American Museum of Natural History: Cosmic Discoveries**: Take a ride with the Museum's astrophysicists through our Solar System, the Milky Way Galaxy, and beyond. Cosmic Discoveries is the first app to collect nearly 1,000 stunning astronomic images.

**Babbel**: Supported by the European Regional Development Fund, the Babbel apps are available for 11 languages, and contain 2,000–3,000 vocabulary words per language. All words are accompanied by images and pronounced for you by native speakers.

**BrainPop Featured Movie**: This well-respected app presents a different animated movie every day covering subjects related to historical and current events, and then lets youngsters test their new knowledge with an interactive quiz.

**3D Brain**: Discover how each brain region functions, what happens when the brain is injured, and how it is involved in mental illness. Each detailed structure comes with information on functions, disorders, brain damage, case studies, and links to modern research. Use your touch screen to rotate and zoom around 29 interactive structures.

**Color Uncovered**: Beautiful app teaches you the basics of color science using smart, interactive optical illusions.

**Dictionary.com:** Pretty simple, but handy. A good dictionary in your pocket.

**Earthlapse**: Turn your iPad or iPhone into a window aboard the International Space Station. Experience stunning views of planet Earth captured by NASA astronauts. Touch the views and control the planet with your finger.

**EduCreations**: This app will turn your iPad into a whiteboard where you can do screencasting.

**Evernote**: A handy app for taking notes.

**Exoplanet**: This app offers a comprehensive visual database of all known exoplanets (planets orbiting other stars) discovered so far. It is frequently updated as new discoveries are confirmed.

**Flashcards**+: Designed at Harvard University, Flashcards+ is an optimized way to learn and retain new information. The highly-rated app allows you to easily create and study flashcards without the hassle of having to buy and write on actual note cards.

**Fotopedia UNESCO World Heritage Site**: Drawing on 20,000 curated photos, this free iPhone/iPad app lets you visit (at least virtually) 890 UNESCO World Heritage sites. In a matter of minutes, you can move from Notre Dame in Paris, to the Dome of the Rock in Jerusalem, to Machu Picchu in Peru, to the Great Pyramid of Giza in Egypt. Fotopedia offers a number of other great apps related to foreign travel here.

**iTunesU**: The iTunes U app gives you access to complete courses from leading universities and other schools — plus the world's largest digital catalog of free

education content — right on your iPad, iPhone, or iPod touch. You can find many of these courses on our list 550 Free Online Courses from Top Universities.

**Khan Academy**: This new app for the iPhone and iPad gives users access to nearly 3,500 videos covering K-12 math, science topics such as biology, chemistry, physics, and the humanities.

**Letterpress**: The highly rated app lets young students find words, steal tiles, and color the board!

**Louvre Museum**: From the most important museum in Paris, this app provides a virtual tour of the Louvre's galleries and lets users check out the works of everyone from DaVinci to Michelangelo. The app gets you up close and personal with paintings, drawings, prints, sculptures, and even the French Crown Jewels.

**Molecules**: An app for viewing three-dimensional renderings of molecules and manipulating them using your fingers. You can rotate the molecules by moving your finger across the display, zoom in or out by using two-finger pinch gestures, or pan the molecule by moving two fingers across the screen at once.

**Mindsnacks Spanish Lessons**: Award winning app teaches students the language skills they need: getting directions, ordering food, meeting new friends, shopping, relaxing. The introductory level is free, although more advanced levels require paying for the app.

**Moon**: The perfect resource to help students learn about the moon.

**Moon Globe**: This free app puts the moon in your pocket with 3D graphics and touch screen navigation.

**Museum of Modern Art**: The MoMA lets you take a close look at art by Abstract Expressionists, including Jackson Pollock, Mark Rothko, David Smith, Willem de Kooning and many others.

**Name It**: "Name It" is a biology learning app for the iPhone. It will teach you to recognize species by pictures. Provides access to 1,117,900 species pages and 1,914,317 pictures. Based on the Encyclopedia of Life, the open source projet to document all living organisms on earth.

**NASA**: Discover a wealth of great space travel information on this free app. The NASA App collects, customizes and delivers an extensive selection of dynamically updated information, images and videos from various online NASA sources in a convenient mobile package. Available for Android, iPhone and iPad.

**Official SAT Question of the Day**: Created the College Board, this app gives you a new official SAT question every day. It also gives you a statistical analysis of your performance.

**Periodic Table of Elements in HD**: Created by Merck, this chemistry app has received lots of praise.

**Planets**: A 3D guide to the solar system for aspiring astronomers. Downloaded over 8 million times, the app lets kids locate planets with a flat view of sky in 2D, or a planetarium style view of the sky in 3D.

**Poetry from the Poetry Foundation**: From William Shakespeare to César Vallejo to Heather McHugh, the Poetry Foundation's app turns your phone into a mobile poetry library.

**Project Noah**: A great tool to explore and document wildlife and a platform to harness the power of citizen scientists everywhere. Available for Apple devices and the Android.

**Quick Graph**: A powerful, high quality, graphic calculator that takes full advantage of the multitouch display and the powerful graphic capabilities of the iPad and iPhone, in both 2D and 3D.

**Science 360**: The Science360 for iPad app, created by The National Science Foundation, 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.

**Shakespeare**: A nice app that puts the complete works of Shakespeare on your iPhone. As you will see, the app comes with some handy functionality: you can search the text by keyword and also increase/decrease the fonts. Plus the app automatically remembers the last page you read.

**Sight Words List**: Sight Words, also known as the Dolch List, are an integral part of learning how to read. The Dolch Word list contains 315 words that are broken down into appropriate age groups. Ideal for kids 1 - 5 years old.

**Spacecraft 3D**: NASA's Spacecraft 3D is an augmented reality application that lets you learn about and interact with a variety of spacecraft that are used to explore our solar system, study Earth, and observe the universe.

**SparkNotes**: SparkNotes -- the publisher of popular literary study guides -- offers a free iPhone app that features 50 pre-installed study guides. And it also gives you access to hundreds of study guides available for viewing online.

**Stanza**: Another good app for downloading free e-books on the iPhone. Once you download the app, navigate to the "Online Catalog" section and then focus on the "Project Gutenberg" materials, which contain a long list of free classics.

**StreetMuseum**: This free iPhone app from the Museum of London overlays 400 years of historic images on today's city streets.

**TED**: TEDTalks need no introduction. They're perhaps the most popular video lectures on the web, featuring talks by "the world's leading thinkers and doers." Now you can access these talks on your mobile phone too.

**The Elementals**: Introduces children to the different elements of the periodic table. Highly rated and free.

**Today in History**: Lists notable events in history and when important people were born/died. Includes over 100,000 events.

**USA Presidents**: A flash card app that teaches you cool facts about the historical line of American presidents.

**Yours, Vincent The Letters of Vincent Van Gogh**: Provided by the Van Gogh Museum in Amsterdam, this application uses the artist's own letters to explore the life and times of the great painter. Includes videos and images of Van Gogh paintings.

Note: The popular blog BoingBoing hosts a podcast called Apps for Kids. You might want to pay a visit.

#### **YouTube Channels**

**American Museum of Natural History**: This channel features the excellent "Known Universe" video, which gives you a six-minute journey from Mt. Everest to the farthest reaches of the observable universe.

**Bad Astronomy**: Bad Astronomy is all about astronomy, space, and science. The videos are created by Phil Plait, an astronomer, writer, and sometimes TV-science-show host.

**HooplaKidz**: This channel is dedicated to animated nursery rhymes and stories designed to entertain and educate children between the ages of 2 and 8.

**Edutopia**: Offers inspiration and information for what works in education. Edutopia is run by The George Lucas Educational Foundation.

**Khan Academy**: This channel features thousands of videos that will teach students the ins and outs of algebra, geometry, trigonometry, calculus, statistics, finance, physics, economics and more.

**Minute Physics**: Cool science videos that are all about getting people into learning physics.

**NASA Television**: NASA's mission is to pioneer the future in space exploration, scientific discovery and aeronautics research. This channel helps explore fundamental questions about our place in the universe.

Numberphile: Videos about numbers - it's that simple. Videos by Brady Haran.

**Periodic Videos**: Your ultimate channel for all things chemistry. A video about each element on the periodic table.

**Sick Science:** Videos and cool science experiments from Steve Spangler and SteveSpanglerScience.com

**SpaceLab**: Can plants survive beyond Earth? Can proteins observed in space reveal the mysteries of life? These questions and more get answered by SpaceLab, a YouTube channel created by Google and Lenovo, in cooperation with Space Adventures, National Aeronautics and Space Administration (NASA), the European Space Agency (ESA), and the Japan Aerospace Exploration Agency (JAXA).

**YouTube EDU**: YouTube hosts a section dedicated to academic videos. It's a little bit of a mixed bag, but it features some quality videos.

**Test Prep (Web Resources)** 

**Khan Academy Tutorials**: SAT Math, GMAT, CAHSEE, California Standards Test, Competition Math, IIT JEE.

Official SAT Question of the Day: Created the College Board, the iPhone/iPad app gives you a new official SAT question every day. It also gives you a statistical analysis of your performance.

**SAT Practice**: The College Board (the makers of the SAT exam) also hosts free practice exercises on its web site.

## **General Reference (Web Resources)**

**Bartleby.com**: Gives you access to free online classics of reference, literature and nonfiction, including Strunk & White's Elements of Style, The World Factbook, The Oxford Shakespeare, and The King James Bible.

**Convert-me.com**: Provides instant conversions for thousands of various units and measurements, both common (e.g., U.S. and metric) and quite exotic, such as ancient Greek and Roman measurements.

**Dynamic Periodic Table**: An interactive Web 2.0 periodic table with dynamic layouts showing names, electrons, oxidation, trend visualization, orbitals, and isotopes.

**Encyclopedia Smithsonian**: The Smithsonian provides a set of handy online resources across many disciplines. From Art & Design to Science & Technology.

**Eric Weisstein's World of Science:** Contains encyclopedias of astronomy, scientific biography, chemistry, and physics. This resource has been assembled over more than a decade by internet encyclopedist Eric W. Weisstein with assistance from the internet community.

**Interactive Timelines**: This site allows people to create interactive timelines, which they can share anywhere on the web.

**Learning Is for Everyone**: This non-profit has created a valuable collection of web resources.

**Unz.org**: This right-leaning archive gives users access to American periodicals going back to 1821. The archive also has a collection of free books and videos & film. We have more on the archive here.

**World Atlas**: An educational resource for world maps, atlases, and in-depth geography information. Provides teachers and students free maps of Europe, the U.S., Canada, Florida, the Caribbean Islands and much more.

#### **Teacher and Parent Resources**

**20 Great Online Resources for Elementary Teachers**: Just what the title says.

**Classroom Earth**: Helps teachers integrate environmental education into their classrooms. A program of NEEF, the National Environmental Education Foundation.

**Climate Classroom**: A National Wildlife Federation initiative that focuses on creating age- and developmentally appropriate curricula and projects that educate youth about the causes of and remedies for global warming. The NWF also offers a great number of lesson plans.

**Common Sense Media**: Non profit dedicated to improving the lives of kids & families by providing the trustworthy information about education, media and technology. Includes reviews of movies, games, apps, & more so parents can make informed decisions.

**Curriki**: The site hosts an online community for creating and sharing curricula and teaching best practices. Currently the site offers over 46,000 free K-12 lessons,

units, assessments, and multimedia learning resources across all subject areas, and the platform enables educators to build their own curriculum by assembling Curriki resources, as well as their own, into collections.

**Edutopia**: Run by The George Lucas Educational Foundation, Edutopia empowers teachers, administrators, and parents with innovative solutions and resources to better education. You can access materials by grade level: K-2, 3-5, 6-8 and 9-12. Edutopia also offers a series of helpful guides, including Mobile Devices for Learning: What You Need to Know and A Parent's Guide to 21st-Century Learning.

**EDSITEment**: A free high quality K-12 educational resource from the National Endowment for the Humanities. The collection has over 450 lessons plans in the humanities written by scholars and teachers covering the fields of history, literature, art and culture, and foreign languages. The site curates links to other educational sites on the web as well.

**Google Earth for Science Teachers**: Includes a downloadable poster and 25 page manual. By Dr. Eric Fermann of Eastchester High School in Eastchester, New York and Steve Kluge of Fox Lane High School.

**Learner.org**: Run by The Annenberg Foundation, Learner.org provides multimedia resources for teachers, including video series designed to help teachers improve their instruction in specific areas. Explore the collection here.

**National Science Foundation Classroom Resources**: A diverse collection of lessons and web resources for classroom teachers, their students, and students' families. Covers Astronomy & Space, Physics, Biology and much more.

**PBS Teachers**: PBS Teachers serves up educational resources, lesson plans, and activities for the K-12 classroom.

**Share My Lesson**: A site where educators can come together to create and share their very best teaching resources. Developed by teachers for teachers, the free platform gives access to high-quality teaching resources and provides an online community where teachers can collaborate with, encourage and inspire each other.

**Teaching Channel**: Teaching Channel is a video showcase—on the Internet and TV—of inspiring and effective teaching practices in America's schools. The video library offers educators a wide range of subjects for grades K-12. The videos also include information on alignment with Common Core State Standards and ancillary material for teachers to use in their own classrooms.

**Teaching Foreign Languages K-12**: Annenberg's Learner.org provides lessons appropriate for K-12 teachers of foreign languages.