

## ELEMENTARY

### MATH

#### ONLINE RESOURCES

**Website:** National Library of Virtual Manipulatives (<http://nlvm.usu.edu/en/nav/vlibrary.html>)

**Topic(s) Covered:** Number in Base Ten, Operations and Algebraic Thinking, Geometry, Measurement

**Grade Level:** K-5

**Description:** This resource is a library of web-based manipulatives for K-12 math instruction.

**Website:** NCTM Illuminations (<http://illuminations.nctm.org/>)

**Topic(s) Covered:** Number in Base Ten, Counting and Cardinality, Operations and Algebraic Thinking, Geometry, Measurement

**Grade Level:** K-5

**Description:** Includes a range of activities (including lesson plans and web-based apps) to teach/practice a variety of concepts and skills. In early grades, this includes a counting activity using five-frames

(<http://illuminations.nctm.org/ActivityDetail.aspx?ID=74>) and an addition activity

(<http://illuminations.nctm.org/ActivityDetail.aspx?ID=198>). In upper elementary, this includes an equivalent fractions activity (<http://illuminations.nctm.org/ActivityDetail.aspx?ID=80>) and a fraction modeling tool

(<http://illuminations.nctm.org/ActivityDetail.aspx?ID=11>).

**Website:** Learnzillion (<http://learnzillion.com/>) *free registration*

**Topic(s) Covered:** Number in Base Ten, Operations and Algebraic Thinking, Geometry, Measurement

**Grade Level:** 3-5

**Description:** In upper elementary grades (3-5), the site includes tutorial videos with activities aligned to specific Common Core Standards.

**Website:** FunBrain (<http://www.funbrain.com>)

**Topic(s) Covered:** Number in Base Ten, Operations and Algebraic Thinking

**Grade Level:** K-6

**Description:** This website offers free web-based games and activities that provide students from K-6 with support practicing mathematical skills.

**Website:** K-5 Math Teaching Resources (<http://www.k-5mathteachingresources.com/>)

**Topic(s) Covered:** Number in Base Ten, Operations and Algebraic Thinking, Geometry, Measurement

**Grade Level:** PK-5

**Description:** The resources on this website include a collection of online games, worksheets, and activities aligned to the Common Core Standards. There are resources that support recently completed, current, and upcoming units in mathematics, aligned to the NYC scope and sequence in grades PK-5.

**Resource:** Student project

**Topic(s) Covered:** Number in Base Ten, Operations and Algebraic Thinking, Number and Operations—Fractions

**Grade Level:** K-5

**Description:** Identify a number, appropriate to your grade level, and develop activities around the number. Several activities can be conducted at all grades. Students can use Name Collection Boxes (see *Everyday Math*) to identify multiple names for numbers. *See example below.*

**25**

25+0    30-5    twenty-five

2 tens and 5 ones

Additional activities can include a description of the properties of the number, appropriate to the grade (prime/composite, odd/even, multi-digit/single-digit, divisible by 3, 4, 5..., etc.). Students can identify the place values of various digits in the number and compare the values of those digits. All of these activities lend themselves to discussion among students.

**Resource:** Student project

**Topic(s) Covered:** Number in Base Ten, Operations and Algebraic Thinking, Measurement

**Grade Level:** K-5

**Description:** Students look through magazines, newspapers, TV, and other media and print resources to find various numbers and identify the ways in which they are used. Possible extensions include: Catalog the different ways numbers appear in society and continue to collect it for an extended period of time. Then create a graph to determine which the most common use of numbers is.

## ENGLISH LANGUAGE ARTS

### ONLINE RESOURCES:

**Website:** <http://www.canteach.ca/elementary/songspoems.html>

**Topic(s) Covered:** Thematic poetry

**Grade Level:** 1-3

**Description:** This blog contains printable poems grouped by theme. It is a good resource for word work and fluency practice.

**Website:** <http://www.readinga-z.com/samples/leveled-reading.html>

**Topic(s) Covered:** Leveled reading samples

**Grade Level:** K-5

**Description:** This is a pay website, but contains a few free, downloadable/printable samples of leveled readers for students.

**Website:** <http://www.starfall.com/>

**Topic(s) Covered:** Early and emergent literacy skills

**Grade Level:** K-1

**Description:** This site contains free online educational games, stories, and plays. Each activity includes sound so that students may elect to have words read aloud to them. Games and stories must be read on the computer- there is no option to print or download materials.

**Website:** <http://www.k12reader.com/>

**Topic(s) Covered:** Basic skills-based reading and writing activities (e.g. sight words, spelling, phonics, grammar, fluency, and reading comprehension worksheets).

**Grade Level:** K-5

**Description:** This website contains skills-based downloadable worksheets and games to support themed resources and suggestions for activities.

**Website:** <http://www.kidzone.ws/kindergarten/index.htm>

**Topic(s) Covered:** Early grade Language Arts

**Grade Level:** PK-2

**Description:** Phonics, handwriting, and resources to choose from to support the learning of sounds, early writing, and reading.

**Website:** <http://www.education.com/workbooks/?grade=second-grade,fifth-grade>

**Topic(s) Covered:** Reading, Writing, Social Studies, Science and Arts

**Grade Level:** K-12

**Description:** Interdisciplinary creative lessons that encourage reading and writing while capturing learner interest across the subject areas.

**Website:** <http://www.abcteach.com/directory/reading-comprehension-grades-2-4-79-2-1->

**Topic(s) Covered:** Reading, Writing, Social Studies, Science and Arts

**Grade Level:** K-5, 6-8

**Description:** Theme-based and Common Core-aligned tasks that are high-interest and across the subject areas may be used to have students work in groups, partnerships, home links and/or independently. This resource includes audio-visual support for multiple entry points making activities accessible to all learners.

**Website:** <http://www.learnzillion.com/>

**Topic(s) Covered:** English Language Arts

**Grade Level:** K-5 and 6-12

**Description:** Lessons engage students in Common Core-aligned activities. All domains (reading, writing, listening and speaking) are utilized to deepen the thinking of all learners.

**Website:** <http://engageny.org/resource/curriculum-exemplars>

**Topic(s) Covered:** English language Arts

**Grade Level:** K-5

**Description:** These lessons are designed to immerse students in the Common Core Standards for ELA. The lessons introduce and develop critical reading and writing skills, including making evidence-based claims about complex texts.

**ONLINE RESOURCES:**

**Website:** NYC DOE Teacher Page Resources for Social Studies

<http://schools.nyc.gov/Teachers/Resources/Classroom/SocialStudies/default.htm>

**Topic(s) Covered:** Listing of useful websites to support Social Studies learning

**Grade Levels:** PK-12

**Description:** This NYC DOE website contains a listing of websites related to social studies with many lessons, articles, ideas, and resources.

**Website:** National Archives of the US

<http://www.archives.gov/education/lessons/>

**Topic(s) Covered:** Social Studies using primary documents

**Grade Level:** PK-12

**Description:** This website contains materials that are reproducible copies of primary documents from the holdings of the National Archives of the United States, with teaching activities correlated to the National History Standards and National Standards for Civics and Government, as well as cross-curricular connections. Sample: Inauguration Quiz

<http://www.archives.gov/education/lessons/inaugural-quiz/>

**Website:** I Civics

<http://www.icivics.org/teachers>

<http://www.icivics.org/search/teachers?authority=34882&strand=34883&grade=34884>

**Topic(s) Covered:** Grade specific civics-related lessons and activities

**Grade Level:** PK-12

**Description:** I Civics prepares young Americans to become knowledgeable, engaged 21st-century citizens by creating free and innovative educational materials. The site was founded in 2009 by Justice Sandra Day O'Connor in an effort to reverse Americans' declining civic knowledge and participation. Content for this site is contributed by educational leaders and a national leadership team of state Supreme Court justices. Educational materials are available by grade level and subjects including: civics & citizenship, economics, geography, government, history and skills.

**Website:** Engage NY

<http://engageny.org/resource/curriculum-exemplars/>

**Topic(s) Covered:** ELA units incorporating Social Studies content for each grade level

**Grade Level:** PK-12

**Description:** Draft materials were developed and published by the Core Knowledge Foundation

[www.coreknowledge.org](http://www.coreknowledge.org) to align to Common Core Standards. Units are developed on a variety of themes including those related to Social Studies on each grade level.

**ONLINE RESOURCES:**

**Website:** <http://www.science-teachers.com/>

**Topic(s) Covered:** Life Science, Space Science, Earth Science and Physical Science

**Grade Level:** K-8

**Description:** Science-Teachers.com is a teaching resource providing lesson plans, worksheets, and activities for upper elementary and middle school science teachers.

**Website:** <http://www.hhmi.org/coolscience/forkids/>

**Topic(s) Covered:** Plant-parts, air, junk, critters, butterflies, inch square

**Grade Level:** K-3

**Description:** Cool Science is a fun site that helps students appreciate science. The resources target observation skills, plants, animal classifications and metamorphosis.

**Website:** <http://engageny.org/resource/core-knowledge-language-arts-listening-and-learning-files/>

**Topic(s) Covered:** Five senses, plants, seasons and weather, human body, astronomy, cycles in nature, insects

**Grade Level:** K-2

**Description:** EngageNY has posted full text units for early childhood grades K-2 aligned to the Common Core Standards for listening with ties to science and social studies.

**Website:** <http://sciencebulletins.amnh.org>

**Topic(s) Covered:** Numerous topics are covered. You can search resources and filter by grade level.

**Grade Level:** K-12

**Description:** The American Museum of Natural History Science Bulletin Website has been updated to provide news on recent discoveries in biodiversity, earth sciences and astrophysics. The bulletins present current science news through video stories, 3-D graphics, and interactive satellite data visualizations.

**Website:** <http://www.animaland.org>

**Topic(s) Covered:** Animal care and rescue

**Grade Level:** K-8

**Description:** The ASPCA's kid's site is a great place to send student web-surfers for the latest animal and pet care information.

**Website:** <http://astroventure.arc.nasa.gov/>

**Topic(s) Covered:** Astronomy, Atmospheric Science, Geology

**Grade Level:** 4-12

**Description:** Astro-Venture is an interactive, multimedia website in which students role-play NASA careers, as they search for and design a planet that would be habitable to humans. The site provides two Astro-Venture Educator Guides designed to assist middle school teachers in meeting national education standards in geology and biology. The Geology Educator Guide addresses standards on the effects of heat and pressure on states of matter, density, convection, plate



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tectonics, volcanoes, the carbon cycle, Earth's magnetic field, and radiation. The Biology Educator Guide addresses standards for ecosystems, producers and consumers, energy, and the cycle of matter.

**Website:** <http://www.bagheera.com>

**Topic(s) Covered:** Endangered animals

**Grade Level:** 4-12

**Description:** The Bagheera endangered species website is a place where students can learn more about endangered species issues.

## SECONDARY

### SECONDARY MATH

#### ONLINE RESOURCES:

**Website:** <http://www.figurethis.org/index.html>

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This resource provides sets of challenges through which students can develop their problem solving skills in algebra, geometry, statistics and probability. Teachers should select challenge problems that support their lessons.

**Website:** <http://nasawavelength.org/resource-search?facetSort=1&topicsSubjects=Mathematics&educationalLevel=High+school>

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This resource provides numerous activities applying mathematics (algebra, geometry, and calculus) to the field of space science.

**Website:** <http://learning.blogs.nytimes.com/category/mathematics/>

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This website provides a number of mathematics resources related to current events.

**Website:** <http://nlvm.usu.edu/en/nav/vlibrary.html>

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This resource is a library of web-based manipulatives for K-12 math instruction. You can utilize these online tools to supplement lessons and bring math content to life through interactive, virtual manipulatives that will help students visualize abstract concepts.

**Website:** <http://www.khanacademy.org/>

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This resource provides an online collection of video lessons in math instruction. You can use these videos to introduce new concepts or as a re-teaching tool. The videos explain math concepts and also work through sample problems.

**Website:** [http://www.free.ed.gov/subjects.cfm?subject\\_id=33](http://www.free.ed.gov/subjects.cfm?subject_id=33)

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This resource is a collection of math teaching and learning resources from the federal government.

**Website:** <http://mathforum.org/>

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** This website provides resources for both students and teachers related to math instruction.

#### **OFFLINE RESOURCES:**

**Resource:** Math projects

**Topic(s) Covered:** All math subjects

**Grade Level:** 6-12

**Description:** Designing and completing projects that develop mathematical knowledge allow students to demonstrate their understanding and to apply what they know to real-life situations. Suggested projects: 1) Decorate a room! Start with calculating square footage for wallpaper or paint, calculate the material needed for sewing the drapes, order and position furniture, and get creative! 2) Design a new cabinet layout for your kitchen, including calculating cabinet dimensions, appliance positioning, and budgeting project costs. 3) Design and/or build something like a drop desk, playground swing set, or a go-cart. 4) Use measurement to complete a baking or sewing project. 4) Do all the preparations for a dinner party, including the planning, shopping, seating arrangement, cooking, etc. 5) Play the stock market: try paper trading some stock and tracking them for a week, a month, or longer.

Article Source: <http://EzineArticles.com/318673>

## SECONDARY ENGLISH LANGUAGE ARTS

### ONLINE RESOURCES:

**Website:** <http://learning.blogs.nytimes.com/>

**Topic(s) Covered:** ELA Reading Informational Text

**Grade Level:** 6-12

**Description:** This online resource includes NYTimes articles and suggested text-dependent questions and sample lesson ideas. “How to Use this Blog” gives a helpful summary: <http://learning.blogs.nytimes.com/2012/09/04/twelve-ways-to-use-our-blog-this-school-year/>

**Website:** <http://www.americanrhetoric.com/top100speechesall.html>

**Topic(s) Covered:** Rhetoric

**Grade Level:** 11-12

**Description:** This resource provides transcripts and original video footage of famous American speeches.

**Website:** <https://owl.english.purdue.edu/owl/resource/677/01/>

**Topic(s) Covered:** Writing

**Grade Level:** 7-12

**Description:** This Online Writing Lab (OWL) at Purdue University houses writing resources and instructional material, for in-class and out-of-class instruction.

- Lessons for the Writing Process are recommended for 6-8.
- Writing a Research Paper is recommended for 9-10.
- Rhetoric and Logic section is recommended for 11-12.

**Website:** <http://teachers.usd497.org/kgrinnel/3levelsofquestions.htm>

**Topic(s) Covered:** Close Reading Strategy

**Grade Level:** 6-12

**Description:** This website includes a description of a reading strategy to help students create their own discussion questions.

**OFFLINE RESOURCES:**

**Resource:** Classroom Library

**Topic(s) Covered:** Independent Reading

**Grade Level:** 6-12

**Description:** *Pajama Day Read-a-thon:* Students are challenged to sustain their silent reading for set time intervals and are awarded tickets when they maintain focus. During the sustained silent reading time, turn-and-talk breaks can be incorporated as a check for understanding. Teachers (families) set up snack stands of pretzels, water, etc. for students during break times and students may use their tickets to secure more preferable snacks. A raffle might also be included for students' earned tickets.

**Resource:** Chart paper, Venn diagram hand out

**Topic(s) Covered:** Pre-writing strategy for Informational Writing

**Grade Level:** 6-12

**Description:** *Personal or Partner 'Same-but-different' Compare/Contrast Narrative:* Using a Venn diagram, students are paired as writing partners to brainstorm their hurricane or bus strike experience. Ideally, students create three Venn diagrams: Waiting for the event, during the event, and the aftermath. Students utilize their graphic organizers to craft a compare/contrast narrative of their experience with their partner. Pairs become a group of four for editing and revision. Once students complete their partner narrative, students are arranged in small 'listening' groups to share their stories with others.



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SECONDARY SOCIAL STUDIES

**ONLINE RESOURCES:**

**Website:** <http://schools.nyc.gov/Academics/CommonCoreLibrary/default.htm>

**Topic(s) Covered:** US History, Government, Global History, Economics

**Grade Level:** 9-12

**Description:** Includes a variety of Common Core-aligned units, tasks, activities and instructional resources.

**Website:** <http://www.archives.gov/education/lessons>

**Topic(s) Covered:** US History, Government, Global History, Economics

**Grade Level:** 9-12

**Description:** Contains reproducible copies of primary sources from the holdings of the National Archives of the United States, teaching activities correlated to the National History, Civics, and Government standards, as well as cross-curricular connections.

**Website:** <http://www.streetlaw.org/en/landmark.aspx>

**Topic(s) Covered:** US History, Government, Global History, Economics

**Grade Level:** 9-12

**Description:** Contains detailed readings and analysis of landmark Supreme Court cases, in addition to summaries of each at three differentiated reading levels. The site includes teaching strategies and activities for each case.

**Website:** <http://learning.blogs.nytimes.com/2012/10/30/teaching-hurricane-sandy-ideas-and-resources/>

**Topic(s) Covered:** US History, Government, Global History, Economics

**Grade Level:** 9-12

**Description:** Provides various documents and activity suggestions on ways to address Hurricane Sandy within social studies content.

**Website:** <http://www.nysedregents.org/GlobalHistoryGeography/>

**Topic(s) Covered:** Global History

**Grade Level:** 9-12

**Description:** Includes an archive of Regents exams, rating guides, and conversation charts. Parents can instruct students to complete parts of an exam and score their results in multiple-choice or DBQs. Students can practice critical analysis by reading one of the norming essays and using the rubric to score it.

**Website:** <http://www.nysedregents.org/USHistoryGov/home.html>

**Topic(s) Covered:** US History and Economics

**Grade Level:** 9-12

**Description:** Includes an archive of Regents exams, rating guides, and conversation charts. Parents can instruct students to complete parts of an exam and score their results in multiple-choice or DBQs. Students can practice critical analysis by reading one of the norming essays and using the rubric to score it.



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**Website:** <http://www.regentsprep.org/>

**Topic(s) Covered:** US History, Government, Global History

**Grade Level:** 9-12

**Description:** Contains topic summaries, sample multiple-choice questions, and sample essays on content in both Regents courses. Students can complete multiple-choice questions or essays, or create visuals (political cartoons, comics, etc.) from the written topic summaries.

**Website:** <http://www.oercommons.org/>

**Topic(s) Covered:** US History, Government, Global History, Economics

**Grade Level:** 9-12

**Description:** Features a subject-specific searchable database of lessons, activities, and instructional resources.

**Website:** <http://learning.blogs.nytimes.com/2012/10/31/teaching-the-election-in-the-final-week-bellwethers-unicorns-and-attack-ads/>

**Topic(s) Covered:** 2012 Presidential Election

**Grade Level:** 6-12

**Description:** Includes a set of materials, activities, and links to other election websites focused on the 2012 Presidential Election.

**Website:** [http://www.centerforactioncivics.org/site/files/963/122146/411514/565724/Why\\_Should\\_I\\_Care.pdf](http://www.centerforactioncivics.org/site/files/963/122146/411514/565724/Why_Should_I_Care.pdf)

**Topic(s) Covered:** Community Change

**Grade Level:** 6-12

**Description:** This lesson is meant to spark a conversation among students about whether or not they should be trying to make a difference in their communities.

**Website:** <http://picturinghistory.gc.cuny.edu/mtr.php>

**Topic(s) Covered:** US History

**Grade Level:** 6-12

**Description:** CUNY's online curriculum includes units, lesson plans, activities, and associated resources.

**Website:** <http://magazines.scholastic.com/election-2012>

**Topic(s) Covered:** 2012 Election

**Grade Level:** 6-8

**Description:** This website includes lesson plans, parent guides, online polls, games, and articles.

**Website:** [http://education.nationalgeographic.com/education/teaching-resources/?ar\\_a=1](http://education.nationalgeographic.com/education/teaching-resources/?ar_a=1)

**Topic(s) Covered:** Geography

**Grade Level:** 6-12

**Description:** This website includes teacher resources focused on five themes of geography in National Geographic.

**OFFLINE RESOURCES:**

**Resource:** Atlases

**Topic(s) Covered:** US History, Global History, Government

**Grade Level:** Middle School/Beginning High School

**Description:** Students can work in pairs to create clues to a location using a variety of maps within an atlas (i.e. this location has a humid climate, low population density, and the land is primarily used for agriculture). Pairs can switch clues to “find” each other’s locations.

**Resource:** Paper, Markers/colored pencils/crayons

**Topic(s) Covered:** Ancient Civilizations & Geography

**Grade Level:** 6

**Description:** Create a hidden treasure map - 'x' marks the spot! Be sure to include a key/legend, appropriate symbols, title, geographic features (land and water). If students are currently studying an ancient civilization, they may choose to incorporate features from that society (such as coliseum, pyramid, etc.)

**Resource:** Paper, scissors

**Topic(s) Covered:** US History

**Grade Level:** 7

**Description:** There were many developments that led to the American Revolution. In this activity, students trace and cut out the shape of several feet. On the feet, and using textbooks or sourcebooks, students list and illustrate the 'steps' toward revolution (Stamp Act, Boston Massacre, etc.). After students create and follow the steps toward Revolution, conduct a Socratic seminar or mini-debate centered on questions such as: What was the leading cause of the conflict between the Colonies and the British government? Whose rights were the Revolutionaries seeking to protect: all people living in the colonies, or certain groups? In what ways were the British justified in fighting to retain their power over the American colonies?

**Resource:** Newspapers

**Topic(s) Covered:** Current Events

**Grade Level:** 6-12

**Description:** Students analyze articles in different newspapers in groups or individually. They can summarize, note opinion vs. fact, and develop further questions. Students can complete analysis using group work activities such as: collaborative strategic reading and reciprocal reading. These can be modified to direct students to create further questions for investigation and hone in on a singular issue. Finally, students develop an overarching topic and question to investigate. Sample topics include Presidential Elections and Impact of Hurricane Sandy. Sample questions include:

- 1) How are the presidential candidates approaching our society's most significant problems?
- 2) How is the hurricane impacting people's lives?
- 3) How does the presidential election affect the people of the NY region?

**Website Address:** <http://www.sciencenewsforkids.org>

**Topics Covered:** All science areas

**Grade Level:** Middle School/Beginning High School

**Description:** This website provides access to contemporary research publications that were adapted by scientists so the research is accessible at the middle school/beginning high school reading level. Articles are sorted by content and many also come with a list of topic-specific vocabulary words and discussion questions to use before, during, and after a reading. There are interdisciplinary discussion questions, and many articles are rich with graphics.

**Website Address:** <http://www.sciencedaily.com>

**Topics Covered:** All science areas

**Grade Level:** 9-12

**Description:** This website takes reports from science journals and summarizes them at a high school reading level. There are no explicit scaffolds for the articles, but clicking on one article links to additional articles on the same topic on the right side of the screen.

**Website Address:** <http://phet.colorado.edu/>

**Topics Covered:** All science areas (and some math)

**Grade Level:** 6-12

**Description:** This website contains Java-based science sandbox simulations across content areas. These simulations are open-ended and interactive, allowing students to manipulate a number of variables in order to understand a science principle. There are lesson plans for most of the simulations, but some lessons and suggested labs do require significant preparation.

**Website Address:** <http://everythingscience.co.za>

**Topics Covered:** Physics and Chemistry

**Grade Level:** 9-12

**Description:** This site contains free online textbooks that cover physics and chemistry topics. The textbooks can be downloaded and portions can be printed if each student does not have computer access. Please note: because the textbooks were not written in the United States, some differences appear in these texts (i.e. they use commas (,) in place of periods (.) for decimal points).

**Website:** <http://www.ck12.org>

**Topics Covered:** All science areas

**Grade Level:** Primarily High School, some Middle and Elementary School

**Description:** This website is free to sign up and provides science textbooks that can be accessed on- or offline. The online textbooks have links to videos and other multimedia materials that help illustrate concepts. Students can also sign up to use the quiz system to check for understanding after reading a particular section. Please note: the site may take some time to navigate.