

eBook:

# Teachable Moments

Activities to Integrate Technology Into  
Your Curriculum Year-Round



**Stuck doing the same old activities every year to make sure you hit the required curriculum points and benchmarks?** Wondering how many “What I did last summer” essays you can grade? With technology becoming more and more prevalent in every aspect of life, it’s essential for educators to integrate digital tools into their lesson plans. From the rise of BYOD in the classroom to the growing popularity of tech tools that increase student collaboration, there are many ways teachers can use digital technology to create innovative assignments that go far beyond the traditional end-of-summer essay.

This set of month-by-month activities uses cutting-edge technology to breathe new life into traditional classroom activities. Covering a range of subject areas and grade levels, you’re sure to find something that your students will enjoy — and that will give you some variety in the assignments you get to grade.

Feel free to adapt these lessons to fit your needs.

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SEPTEMBER

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# Anniversary of the Bill of Rights

Sept. 25

Subject Area	Grade Level	Technology
 SOCIAL STUDIES	4-6	Google Docs and Slides

**Activity:** Ask students to research one of the people instrumental in getting the Bill of Rights passed, including the people who wrote them, those who argued for limiting federal powers and those who codified the rights needed for a free people.

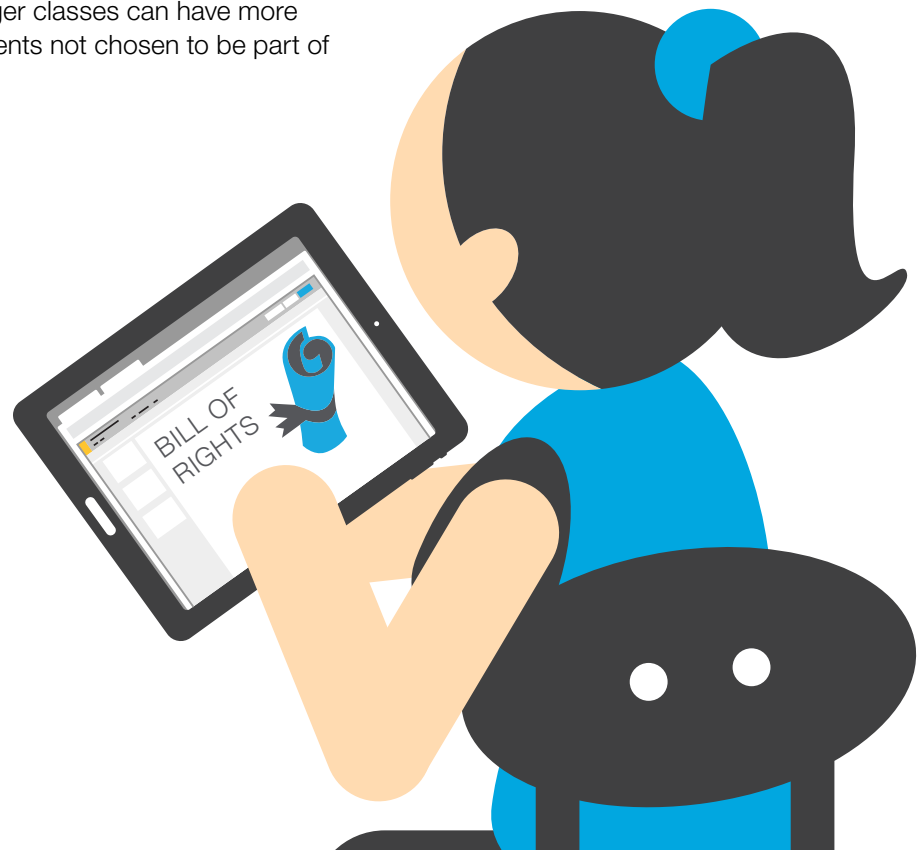
Have them either write a paper on their subject or create a slideshow to present to the class.

Subject Area	Grade Level	Technology
 SOCIAL STUDIES	5-9	XMind mind mapping software Google Docs and Slides

**Activity:** Split the class into 10 groups. Assign each group one of the first 10 amendments to the U.S. Constitution. Using collaborative software such as XMind or Google Docs to compile and organize their thoughts, have them work together to explain the meaning of the amendment, the effects it has on their daily lives and the conditions in previous legal systems that led the country's founders to write these particular amendments.

For a more in-depth look, students can also explore the arguments against their assigned amendment and discuss how the views of the federalists and the anti-federalists colored their view of the amendment. Larger classes can have more groups and can be assigned the proposed amendments not chosen to be part of the Bill of Rights.

Activities that ask students to look into the implications of and arguments against the amendments to the U.S. Constitution help encourage them to think more deeply about the meaning of this legal document.



### Other Interesting Dates to Build Lessons Around



11

Day of Service



13

Roald Dahl Day



19

Respect for the Aged Day



20

International Day of Peace



OCTOBER

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# Digital Citizenship Week

Oct. 18-25

Subject Area	Grade Level	Technology
 <b>MATHEMATICS</b>	2-5	Google Sheets PollDaddy


**Activity:** Discuss appropriate and inappropriate uses of mobile technology, such as putting phones away for dinner, turning phones off at the movie theater and so on. Use PollDaddy to perform an in-class survey as students discuss different ways they see mobile technologies being used and decide whether they're appropriate or inappropriate.

Have students track the number of times they and their family members use technology inappropriately over the course of a week. Have them use Google Sheets to analyze the data to see if kids or parents are more likely to use technology inappropriately, if time of day or day of the week have an effect on appropriate use, and which inappropriate uses were the most and least common.

Subject Area	Grade Level	Technology
 <b>LANGUAGE ARTS</b>	3-8	Google Docs online cyberbullying resources (such as NoBullying or PureSight)

**Activity:** Using online resources such as those listed above, read an essay or story about someone who has been cyberbullied. Explore and discuss their reaction and those of the people around them, including parents, peers and teachers.

Have students use Google Docs to write and then share alternate essays or story endings in which the bullied person reacts in a different way. They should explore in the written piece how the people around the bullied person change their reactions based on the edits made in the alternate story.

Subject Area	Grade Level	Technology
 <b>COMPUTER SCIENCE</b>	9-12	Programming tools that compile Java or C++ (such as ShiftEdit or SourceLair)

**Activity:** Have students use one of the programming tools listed above to create a technology tool that can assess whether social media posts constitute cyberbullying.

As part of the initial discussion, students will decide as a class what cyberbullying is and define key words and phrases they can use to objectively assess cyberbullying. They can also look at other potential markers of online bullying activity, such as frequency of posts, age of account used to make posts, age and gender of the person posting and the person being targeted.

Then students can split into groups to design and code a tool that can search for cyberbullying online.

## Other Interesting Dates to Build Lessons Around



**International Day of Non-violence**



**World Animal Day**



**Ada Lovelace Day**



**Dictionary Day**



**Anniversary of the Dedication of the Statue of Liberty**

Digital Citizenship week activities will include computer science activities, but also look for ways to bring these concepts into other curriculum areas, such as math and language arts.



NOVEMBER

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# National STEM Day

Nov. 8

Subject Area	Grade Level	Technology
 SCIENCE	K-2	Toca Builders

**Activity:** Let students use the Toca Builders app to design their own world in a Minecraft-like environment. Assign each student a structure to build using certain shapes or a set of colors in equal proportion to create designs.

Allow students to preplan their designs using Minecraft blocks so everything is all set up once they're ready for technology time.

Subject Area	Grade Level	Technology
 LANGUAGE ARTS	7-10	Google Docs online research tools Prezi

**Activity:** Ask students to pick their favorite technology tool. Have them write a research paper exploring:

- The reason the tool was created, including the problem the tool was designed to solve
- The level of effectiveness in solving the main problem
- What other uses people found for the tool
- How the tool affected our culture

For further study, students could present their findings on their chosen tool using presentation software such as Prezi. Then the class could vote on their favorite technology tool based on the presentations, and brainstorm other ways to solve the identified problems.

### Other Interesting Dates to Build Lessons Around



Marie Curie's Birthday



Anniversary of the Fall of the Berlin Wall



World Kindness Day



Giving Tuesday



Mark Twain's Birthday







DECEMBER

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# Special Education Day




Dec. 2

Subject Area	Grade Level	Technology
 <b>COMPUTER SCIENCE</b>	5-12	Mobile devices or Chromebooks programming tools (such as ShiftEdit or SourceLair)

**Activity:** Mobile devices and Chromebooks have a variety of assistive features to help students and adults with special needs. Ask students to find the assistive features on these devices and use them for a day. They should report back about their experiences and create a list of recommendations to make the assistive tools better.

For further study, students with coding experience can write apps using the programming tools listed above to better adapt technology to special needs, and present their apps in a portfolio show for parents and the community.

### Other Interesting Dates to Build Lessons Around

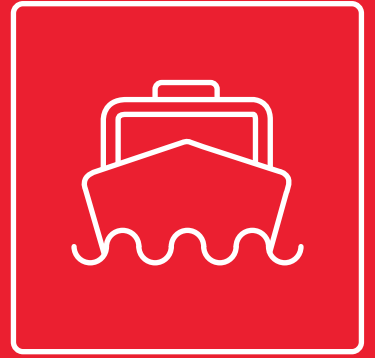
- 
**Computer Science Education Week**
- 
**Pearl Harbor Day**
- 
**Wright Brothers Day**

Subject Area	Grade Level	Technology
 <b>BUSINESS AND MARKETING</b>	10-12	Online research tools Google Sheets Adobe Creative Suite Blogger

**Activity:** Ask students to research specific special needs and the technology tools designed to assist with them. Then they can pick a need that isn't well served by the technology tools available and design a new tool to address it.

Students can then write a business plan for the new technology product and use a design platform such as Adobe Creative Suite to design a marketing campaign to introduce it to the target population, including a website, press release and a printed brochure.





JANUARY

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# Anniversary of Ellis Island

Jan. 1

Subject Area	Grade Level	Technology
 <b>SOCIAL STUDIES</b>	2-5	Online research tools (including Ellis Island Passenger Search) vision boards

**Activity:** In a twist on the traditional family tree assignment, ask students to use Ellis Island Passenger Search to see if their ancestors came through that gateway to the United States. Students who find their ancestors listed among the entrants to the U.S. can take a screenshot of the search results, find and scan photos of those ancestors in their family records and create a visual family history using an online vision board creator.

Students whose families aren't listed there can also create a visual family history using photos and the records they have available — tribal records for Native American students, copies of stamped passport pages or citizenship documents for more recent immigrants, and so on.

Subject Area	Grade Level	Technology
 <b>CROSS-CURRICULAR</b> (mathematics and social studies)	6-8	Online research tools, (including Ellis Island Passenger Search) Google Sheets Trello Evernote

**Activity:** Ask students to use Ellis Island Passenger Search to gather data on how many immigrants came through Ellis Island in a particular year. Have them use an organization platform such as Trello or Evernote to break down the data by age, country of origin, religion and other demographic factors to find patterns.

Students can then take this data to social studies class, where they can trace the dispersal of these immigrants throughout the United States, looking at the pockets where large groups of immigrants of certain characteristics settled.

## Other Interesting Dates to Build Lessons Around



**Science Fiction Day**



**Louis Braille's Birthday**



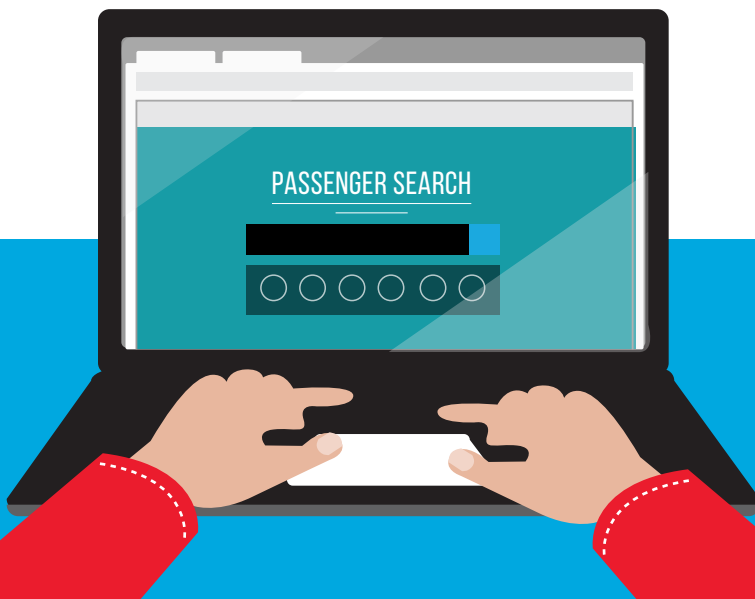
**National Show and Tell Day**



**Anniversary of the Invention of the Frisbee**



**Puzzle Day**





FEBRUARY

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# Black History Month

Subject Area	Grade Level	Technology
 <p><b>LANGUAGE ARTS</b></p>	4-7	Online research tools Google Docs Newspaper Club WeVideo

**Activity:** Ask students to research newspaper articles describing a specific incident related to black history in the 1900s, such as Jackie Robinson's move into Major League Baseball, the Emmett Till case, passage of the Voting Rights Act, the Loving v. Virginia case or the launch of Oprah Winfrey's national talk show. They can then gather the facts that newspaper reporters of the time thought were important and write their own news articles, either for print or broadcast. They can use an online tool such as Newspaper Club to make and print their own newspaper, or, students interested in broadcasting can videotape themselves reading their stories and edit the video in WeVideo. As an added challenge, students could compare and contrast the coverage these types of court cases and incidents receive today.

Subject Area	Grade Level	Technology
 <p><b>SOCIAL STUDIES</b></p>	9-11	Online research tools Conceptboard Blogger

**Activity:** We all know about Rosa Parks, Martin Luther King Jr. and Malcolm X. Ask students to research lesser known African-American historical figures, such as:

- *Matthew Henson* - an explorer best known as the co-discoverer of the North Pole with Robert Edwin Peary in 1909
- *Dr. Charles Drew* - a physician, surgeon and medical researcher, specializing in blood transfusions
- *Madam C.J. Walker* - the first female self-made millionaire in the U.S.
- *Frederick McKinley Jones* - the designer of a portable air-cooling unit to help transport food
- *Dr. Vivien Thomas* - a cardiac surgeon and instructor
- *Garrett Augustus Morgan* - a Cleveland inventor and businessman best known for creating the modern day gas mask and traffic light
- *Fannie Lou Hamer* - a voting rights advocate
- *Shirley Chisholm* - the first African-American woman to run for president

Groups can use Conceptboard to share research and plan their presentation flow. At the end of all the presentations, students can pool together their final products or videotape all the presentations and use them to create a black history site.

### Other Interesting Dates to Build Lessons Around



5

**National Weatherperson's Day**



7

**Love Your Robot Day**



17

**Digital Learning Day**



22

**World Thinking Day**



26

**Tell a Fairy Tale Day**





MARCH

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# Alexander Graham Bell's Birthday

Mar. 3

Subject Area	Grade Level	Technology
 LANGUAGE ARTS	4-7	FreeCAD 3D Printer

**Activity:** Alexander Graham Bell's most well-known invention is, of course, the telephone, but his first invention was a device to make dehusking wheat easier. Ask students to look at a task they or a family member does routinely and design a machine that will make that task easier or faster. Students could use FreeCAD, an open source 3D modeler, to create the design.

If your school has access to a 3D printer or a dedicated makerspace, ask students to vote on their favorite design and work together to build it.

Subject Area	Grade Level	Technology
 SCIENCE	6-9	TinyCAD

**Activity:** Ask students to design circuits that run a telephone — either mobile, cordless or standard — using TinyCAD, a program for drawing electrical circuit diagrams. They can take apart old phones to compare the computer-designed models with actual phone circuit boards.

### Other Interesting Dates to Build Lessons Around



3

National Anthem Day



4

National Day of Unplugging



14

Albert Einstein's Birthday



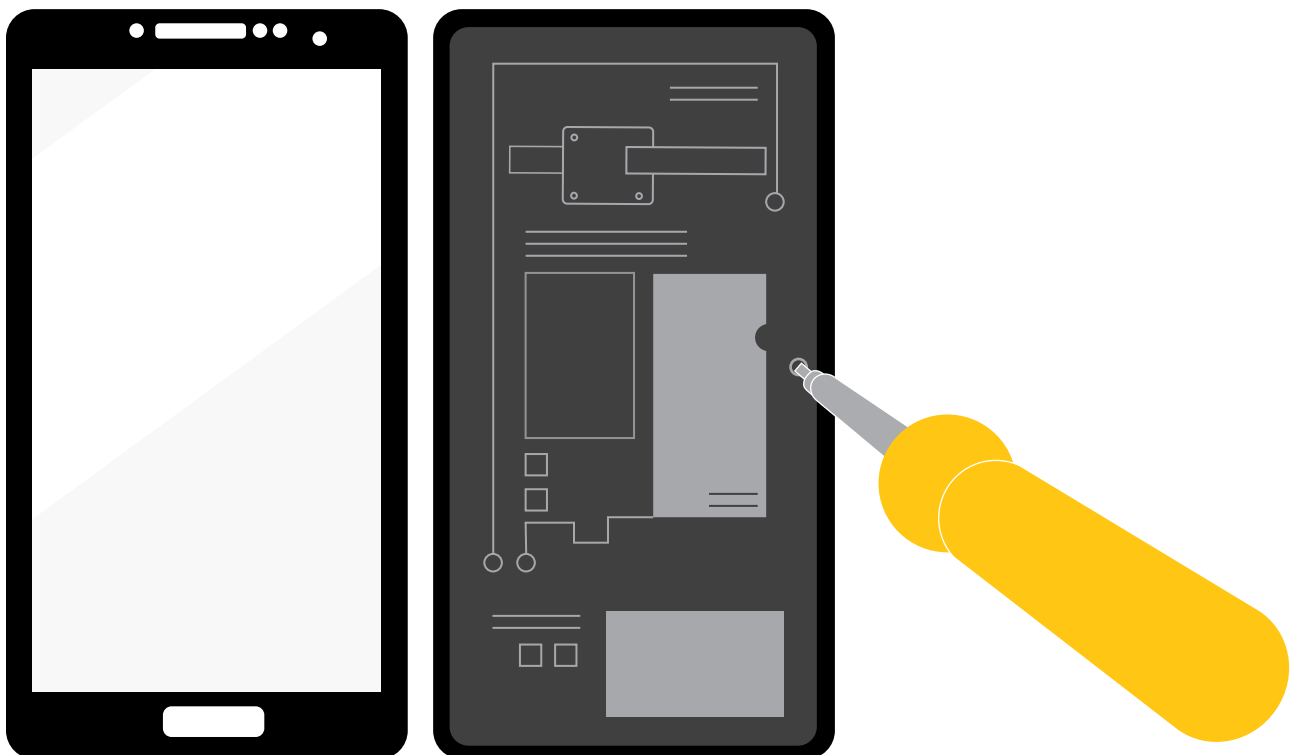
21

Anniversary of the First Tweet on Twitter



22

World Water Day







APRIL

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# Earth Day

Apr. 22

Subject Area	Grade Level	Technology
 SOCIAL STUDIES	6-9	Animoto Google Sheets

**Activity:** Ask students to explore the environmental movement. They should pick one person who's had a lasting effect on the movement either as an advocate or an opponent. Explore their history and the long-term effects of the work they've done.

Rather than a research paper, ask students to create a video using Animoto to highlight the person they've chosen to study. They can include photos, clippings of news and magazine articles they've found about their subject, and graphs created in Google Sheets showing any quantifiable effects the person has had on the environmental movement.

Subject Area	Grade Level	Technology
 SCIENCE	10-12	Evernote PCRaster modeling software

**Activity:** Ask students to pick an environmental issue and explore different ways to solve it. Students can gather visual or text-based data using Evernote and download PCRaster for free to model different solutions.

Once they've chosen the most effective or financially viable option, they can present their findings to the class or turn them in as a research paper.



### Other Interesting Dates to Build Lessons Around



**Anniversary of the First Modern Olympics**



**Encourage a Young Writer Day**



**Beginning of the Civil War**



**Astronomy Day**



**William Shakespeare's Birthday**

Go beyond the typical Earth Day growing activities and ask students to delve deeper into the history of the environmental movement by researching both its supporters and detractors.



MAY

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# Sally Ride's Birthday

May 26

Subject Area



LANGUAGE ARTS

Grade Level

6-9

Technology

Coggle  
Google Docs

**Activity:** In honor of the first American woman in space, ask students to pick an influential woman in the history of aeronautics and space science and write her biography using Google Docs.

Have students use Coggle to gather research and create mind maps to organize their data.

Subject Area



SCIENCE

Grade Level

8-11

Technology

Animoto  
Google Slides

**Activity:** Ask students to research the dynamics of the space shuttle and the International Space Station. Break them into small groups, and have each group explore a different element of shuttle travel, such as the materials used to build the space shuttle, or food sources for shuttle travelers.

Each group should use Animoto or Google Slides to present their findings to the class so all students get an idea of how space shuttles work and what life on a shuttle or space station is like. They can compare their ideas with readings and videos from astronauts who've experienced it firsthand.

Students can then work together to plan a trip to the moon or Mars by shuttle, figuring out how long it would take, how many people would need to go, what foods and materials would need to be taken and what the goal of the mission would be.

## Other Interesting Dates to Build Lessons Around

National  
Music Week

Comic Book Day

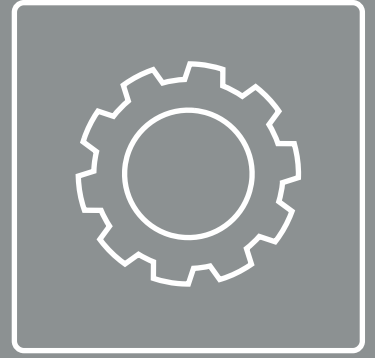


Kite Day



Biographer's Day

Anniversary of the  
First Morse Code SentAnniversary of First  
U.S. Newspaper




JUNE

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# National Week of Making

June 19-25

Subject Area	Grade Level	Technology
 CROSS-CURRICULAR	5-12	3D printer Makerspace

**Activity:** Even though school is out in most areas, students can come together during summer enrichment programs or child care camps to create original projects.

If schools have access to a 3D printer or a dedicated makerspace, they can open their use up to all kids aged 5-18 in the community during the National Week of Making so students can see their ideas and designs come to life.

Communities can come together for local and regional maker fairs and competitions to bring students together and honor some of their great work. This type of event can gather local media attention and business sponsorships that can help purchase equipment, such as that 3D printer, that can be used on an ongoing basis.

### Other Interesting Dates to Build Lessons Around



World Ocean Day



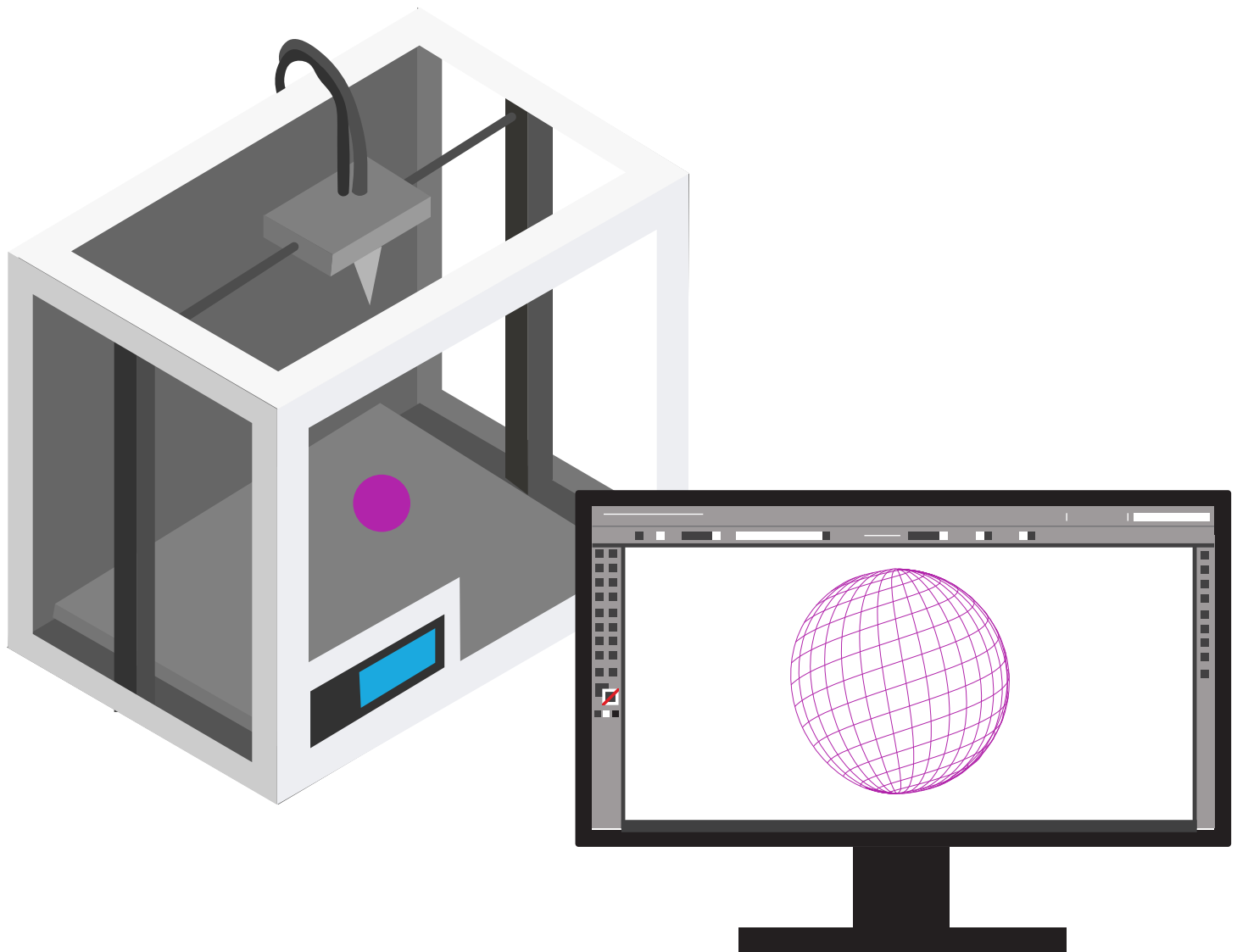
Youth Day



Anniversary of the First Official Baseball Game



Helen Keller's Birthday





JULY

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# Anniversary of the First Walk on the Moon

July 21

Subject Area	Grade Level	Technology
 SCIENCE	3-6	Google Sheets Animoto

**Activity:** Ask students in a space-themed summer camp or year-round school program to explore gravity. Gather data on the damage done when a mix of objects drops, and the time it takes them to fall. After running a few experiments, use the data to make predictions about the time taken by certain objects, and test the hypotheses.

Further the study of gravity by using the data about falling objects and the differences in gravity between the Earth and the moon to have students animate a model or create a video using Animoto of how humans and objects would react on the moon.

Subject Area	Grade Level	Technology
 SCIENCE	9-12	Google Sheets Space.com (or other astronomy sites)

**Activity:** Ask students to use online resources such as Space.com to explore the elemental structure of the moon, comparing and contrasting the percentages of the most common elements on the moon with their percentages on Earth. To further your students' education, you can also sign up to attend a NASA certification workshop in order to borrow lunar and meteorite sample disks for your classroom, which contain different types of authentic meteorite and lunar rock and soil samples collected by Apollo astronauts.

Advanced students could look at ways to use the elements on the moon to create energy or useful products on Earth. They could also examine the ethical implications of mining the moon and assess whether long-term mining could affect the Earth and if so, how long it would take.

### Other Interesting Dates to Build Lessons Around



World Population Day



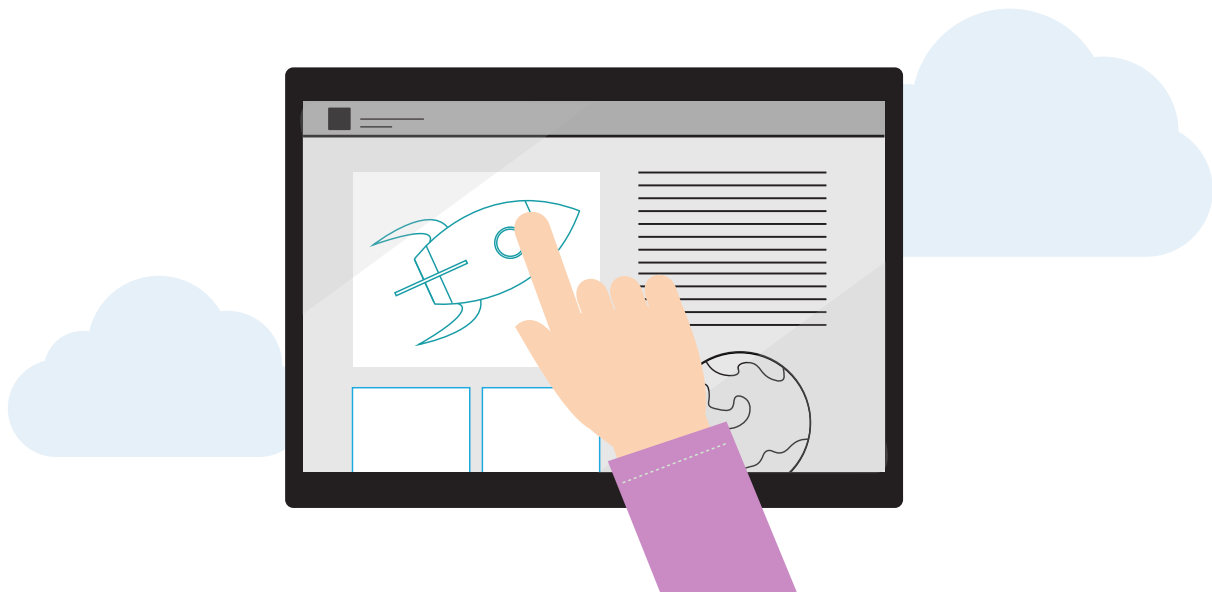
Anniversary of the Etch-a-Sketch



Anniversary of the Ford Motor Company's First Car



J.K. Rowling's Birthday







AUGUST

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# Anniversary of Babe Ruth's Historic 500<sup>th</sup> Home Run

Aug. 11

Subject Area	Grade Level	Technology
 MATHEMATICS	3-10	Google Sheets MaxStat statistical analysis software

**Activity:** Ask students to look at one statistic from their favorite sport. Ask them to explore whether players who excel in that one stat also do well in other aspects of the sport. For example, if a basketball player is a great rebounder, are they also a good shooter? Students can use MaxStat's lite version to look for correlations between statistics and overall performance.

Students can then gather real-time data from sports that are in season, such as baseball or summer league basketball, and compare that with the historical data they've found in their research.

After students have completed their research, they can use Google Sheets to compare their findings to see if certain statistics are better predictors of overall performance in each of their favorite sports, and whether those predictors differ by gender.

### Other Interesting Dates to Build Lessons Around



**Birthday of American Explorer William Clark**




**Friendship Day**



**Left Handers Day**

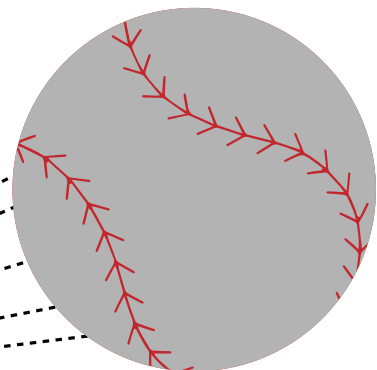


**Bad Poetry Day**

Subject Area	Grade Level	Technology
 SCIENCE	10-12	TeraPlot

**Activity:** Ask students to look at the physics behind hitting a home run in various baseball stadiums, both current and historical. They can find measurements for the various fields online, then use TeraPlot graphing software to model the angles and velocity needed to hit a ball out of the park without fouling.

Students can use their models to create a list of stadiums that are easiest and hardest to hit home runs in, and compare that list with home run data throughout the years to see if their models match the reality.



We'd love to see you implement these activities as they are, but you can also use this guide as a springboard to integrate historical events and days of note into your curriculum to keep it fresh.



## Sustain Learning Throughout the Year

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In addition to implementing these activities as they appear here, you can also use this guide as a springboard to integrate historical events and days of note into your curriculum to keep it new and exciting year-round. For example, a home economics class could fill nearly an entire year with the food-related days that seem to pop up constantly.

These activities, which illustrate how easily free and built-in tools can help students create powerful learning artifacts using Chromebooks or tablets, are just a start in helping you keep your students motivated and engaged, no matter what their preferred learning style and interests are.

To find out more about Samsung's education technology solutions and partnerships, visit [samsung.com/education](https://samsung.com/education)

## Online Tools and Resources

**Adobe Creative Suite:** <http://www.adobe.com/creativecloud.html>

**Animoto:** <https://animoto.com/>

**Coggle:** <https://coggle.it/>

**ConceptBoard:** <https://conceptboard.com/>

**Ellis Island Passenger Search:** <http://libertyellisfoundation.org>

**Evernote Skitch:** <https://evernote.com/>

**FreeCADWeb:** <http://freeCADWeb.org>

**MaxStat:** <http://www.maxstat.de/>

**Newspaper Club:** <https://www.newspaperclub.com/>

**NoBullying:** <https://nobullying.com/>

**PCRaster:** <http://pcraster.geo.uu.nl/>

**PollDaddy:** <https://polldaddy.com/>

**Prezi:** <https://prezi.com/>

**PureSight's cyberbullying stories:** <http://puresight.com/Real-Life-Stories/real-life-stories.html>

**ShiftEdit:** <https://shiftdit.net/login>

**SourceLair:** <https://www.sourcelair.com/>

**Space.com:** <http://www.space.com/>

**TeraPlot:** <http://www.teraplot.com/>

**TinyCAD:** <https://sourceforge.net/projects/tinycad/>

**Toca Builders:** <https://tocaboca.com/app/toca-builders/>

**Vision Board:** <https://play.google.com/store/apps/details?id=air.com.astraport.visionboard>

**WeVideo:** <https://www.wevideo.com/>

**XMind:** <http://www.xmind.net/>

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