California Common Core Standards

Session 5 of 5: Technology

Technology and the Common Core

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05573.95
AT TODAY'S RATE OF CHANGE,
TECHNOLOGY WILL EXPERIENCE
20,000 YEARS OF GROWTH
THIS CENTURY

21st Century Learners Need To:

- Produce and Publish Documents
- Interact and Collaborate
- Communicate Using Web Tools
- Evaluate Information Presented in Different Media Formats

So how do we teach these skills?

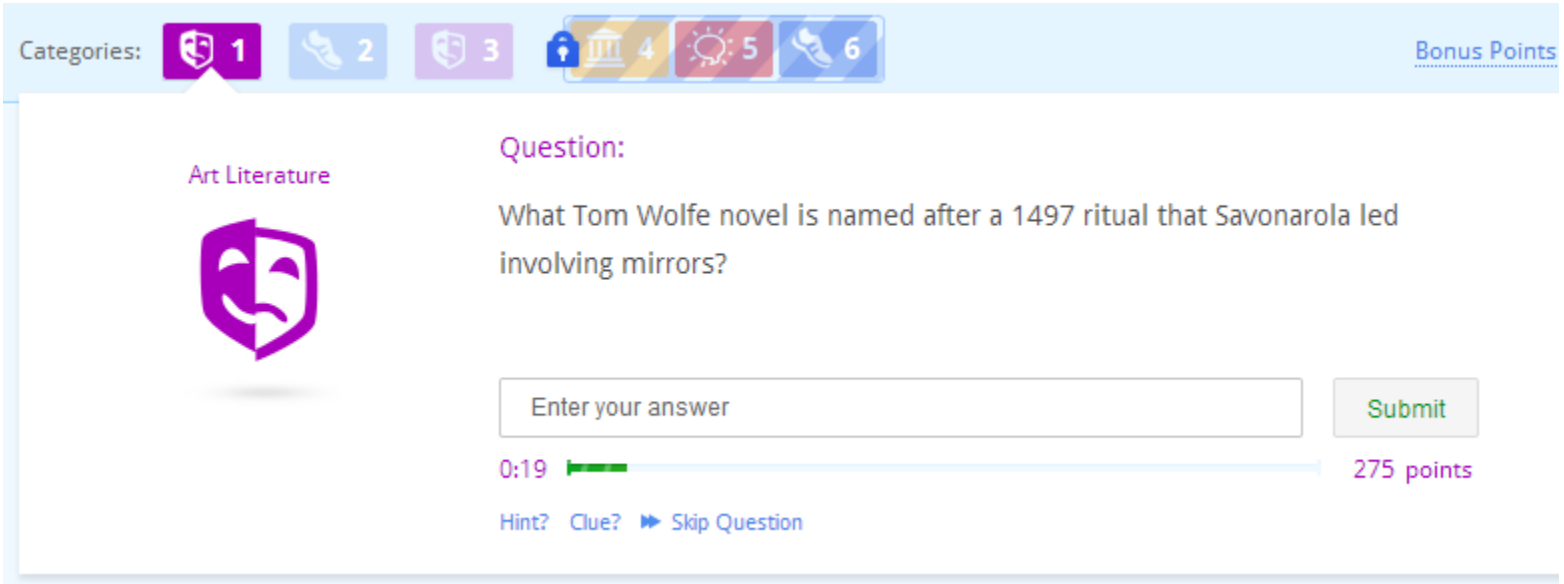
Technology is embedded in the new Common Core State Standards

Reading Information Text Standard 5

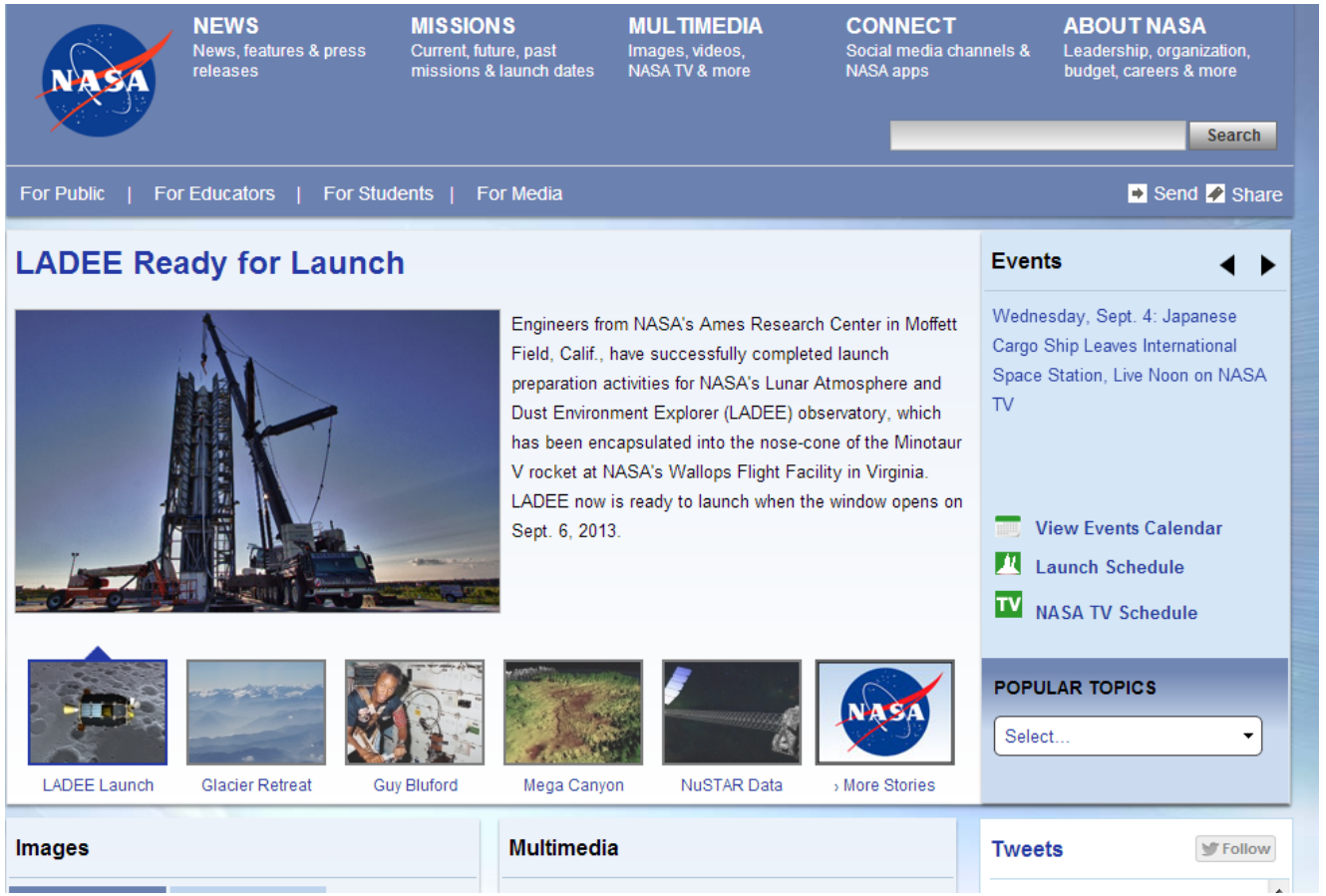
Analyze the structure of texts, including how portions of the text relate to each other and the whole.

- 1st-2nd grade: Use text features (captions, headings, etc) to locate information
- 3rd grade: Use search tools like key words, sidebars and hyperlinks
- 6th grade: Analyze the use of text features in popular media

Finding Information – 3rd Grade



Finding Information – 6th Grade



Let's play…

NY TIMES BINGO TIME

How should you dress tomorrow based on the weather?	A sports, arts or style article	An article that might not have been published if we did not have freedom of the press	A word you don't know and a guess about its meaning
The story considered most important by Times editors today	A story that would be considered hard news	The article on Page 1 you'd be most interested in reading	A metro or business article
A story that might benefit from a chart or graph, and why	A branch of the U.S. government involved in an article	A science, health or technology article	Your guess as to why the main photo was chosen
If an alien landed here and read only this page of this paper, what is one conclusion it might draw about human beings?	A controversial issue covered or alluded to on Page 1	An article that reminds you of something you've studied in school, and why	Another country and a brief summary of why it is in the news

MINIJAMBOX by JAWBONE

The New York Times

Thursday, September 5, 2013 Last Update: 1:48 PM ET

MINIJAMBOX by JAWBONE

CRISIS IN SYRIA

Rebel Brutality Poses Dilemma as West Weighs Strike on Assad

By C. J. CHIVERS

Many Syrian rebel fighters have adopted some of the chillingly ruthless tactics used by the government, raising the prospect that a military strike could strengthen extremists.

910 Comments

LATEST **Updates on Syria**

10:40 AM Lawmakers Grapple With Lack of Clear Ally

10:37 AM New Figures on Chemical Payloads in Aug. 21 Attack

Ayman Oghanna for The New York Times

U.S. Threat in Syria Inflames Iraq's Shiites

By TIM ARANGO 56 minutes ago

As the West mulls strikes in Syria, Iraqi Shiites see the past repeating and are set to take on a familiar adversary.

The Opinion Pages

LINDA GREENHOUSE

The Next Abortion Case

An appeal in Oklahoma has drawn little attention, but at issue is the Supreme Court's own unstable abortion doctrine.

MORE IN OPINION

- Editorial: Stakes in Congress
- Rubin: Syria Is Not Kosovo
- Op-Ed: The Syria Plan?
- The Stone: The Disappearing Women

PRIVATE LIVES

Cooking Is Freedom

By JIM SOLLISCH

When I was 14, in 1972, girls took home ec and boys took shop. But I wanted to make lasagna, not birdhouses.

OP-ED COLUMNISTS

- Blow: The Era of Disbelief
- Collins: Off to the Mayoral Races
- Kristof: The Right Questions on Syria

MARKETS » At 1:51 PM ET

S.&P. 500	Dow	Nasdaq
1,657.07	14,955.76	3,661.24
+3.99	+24.89	+12.19

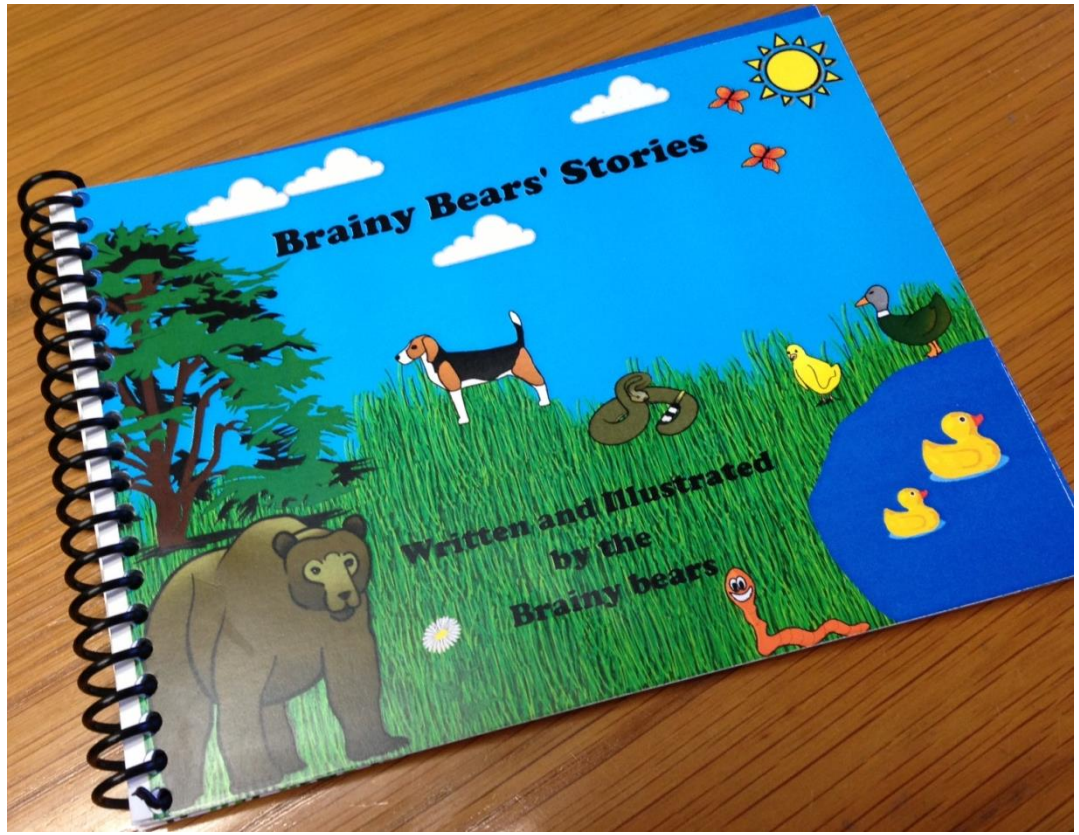
AMERICAN EXPRESS PERSONAL SAVINGS

Writing Standard 6

Use technology, including the Internet, to produce and publish writing as well and to interact and collaborate with others.

- Kinder – 2nd grade: Explore digital tools to produce/publish writing
- 3rd-5th grade: Publish with the guidance and support from adults
- 6th-8th grade: Interact and collaborate with others
- 9th – 12th grade: Keep information updated, and display information flexibly and dynamically

Producing and Publishing – K-2nd grade



- Pixie allows students to draw and add text
- Final products can be posted online, printed as a book, or saved as a photo
- Students learn how to use a mouse and keyboard while producing original works

Producing and Publishing – 3rd – 8th grade

- Edu.Glogster allows students to create interactive posters with:
  - Text
  - Photos
  - Videos
  - Graphics

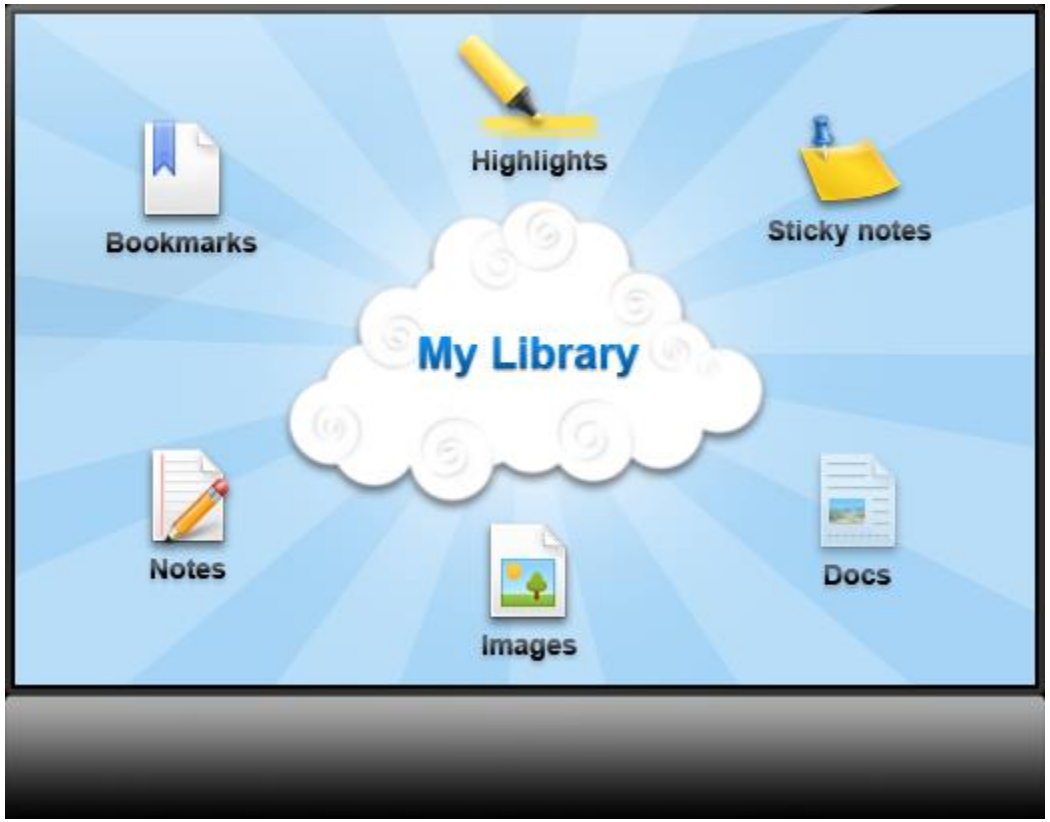
How is this different than the writing you completed as a student?

Writing Standard 8

Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

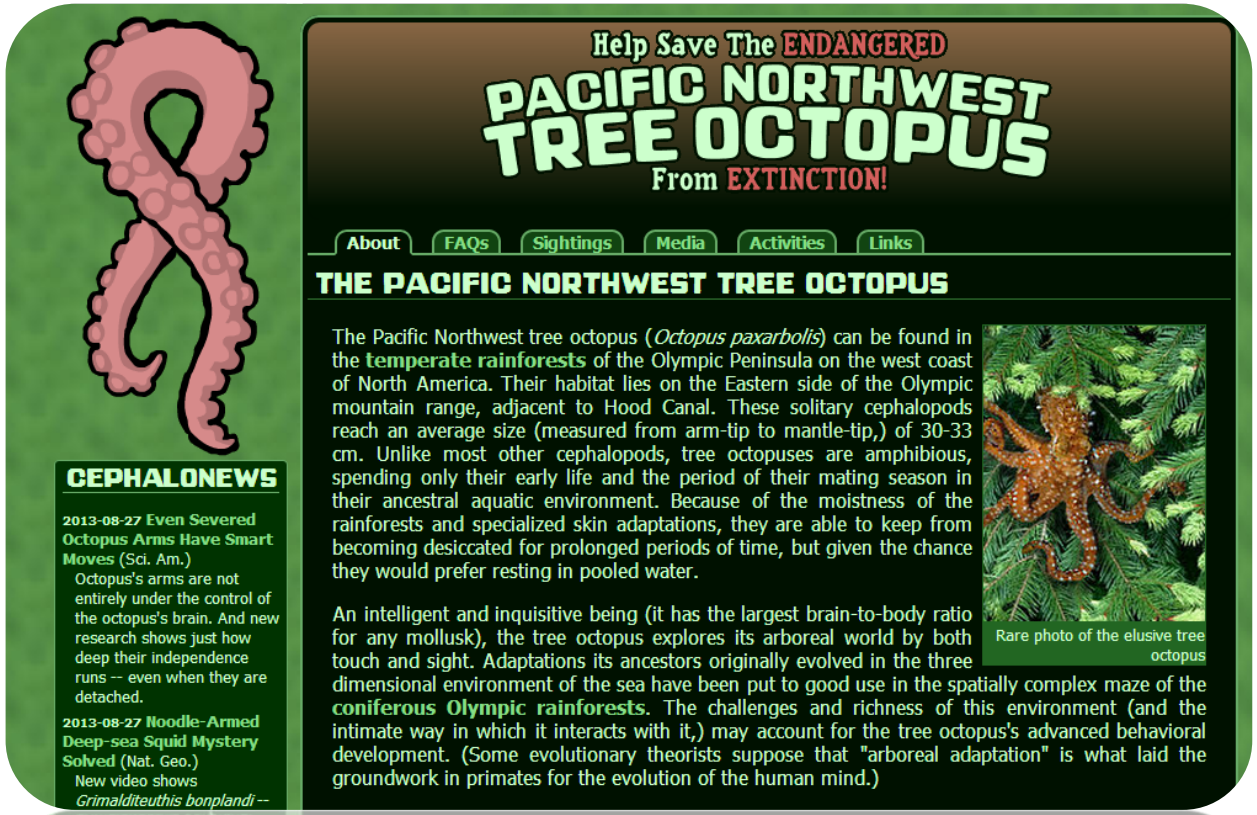
- 3rd-5th grade: summarize information and list sources
- 6th-8th grade: Use effective search terms, assess credibility of sources, avoid plagiarism, cite sources correctly
- 9th-12th grade: Gather information from multiple authoritative print and digital sources; use advanced searches effectively; Integrate information selectively; include footnotes and endnotes

Gathering Sources – 3rd-5th grade



- Diigo helps students keep all their research in one place
  - Highlight and annotate right on the webpage!
  - Share lists to collaborate with others
  - Access research from any internet-capable device

Gathering Sources – 6th-8th grade



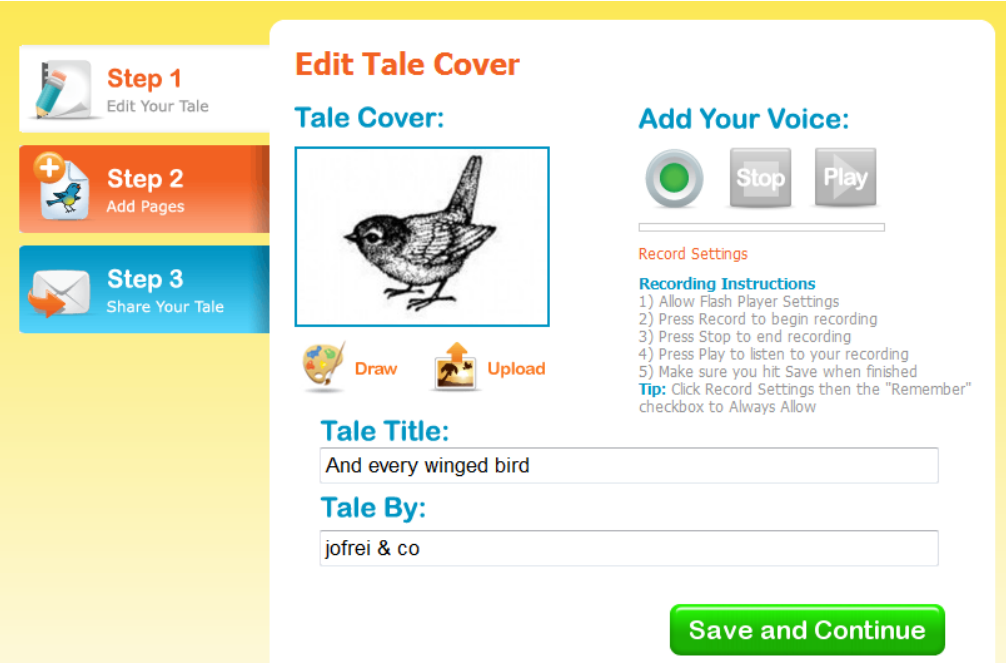
Gathering Sources isn't just for school. Use any of these to learn something new?

Speaking and Listening Standard 5

Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

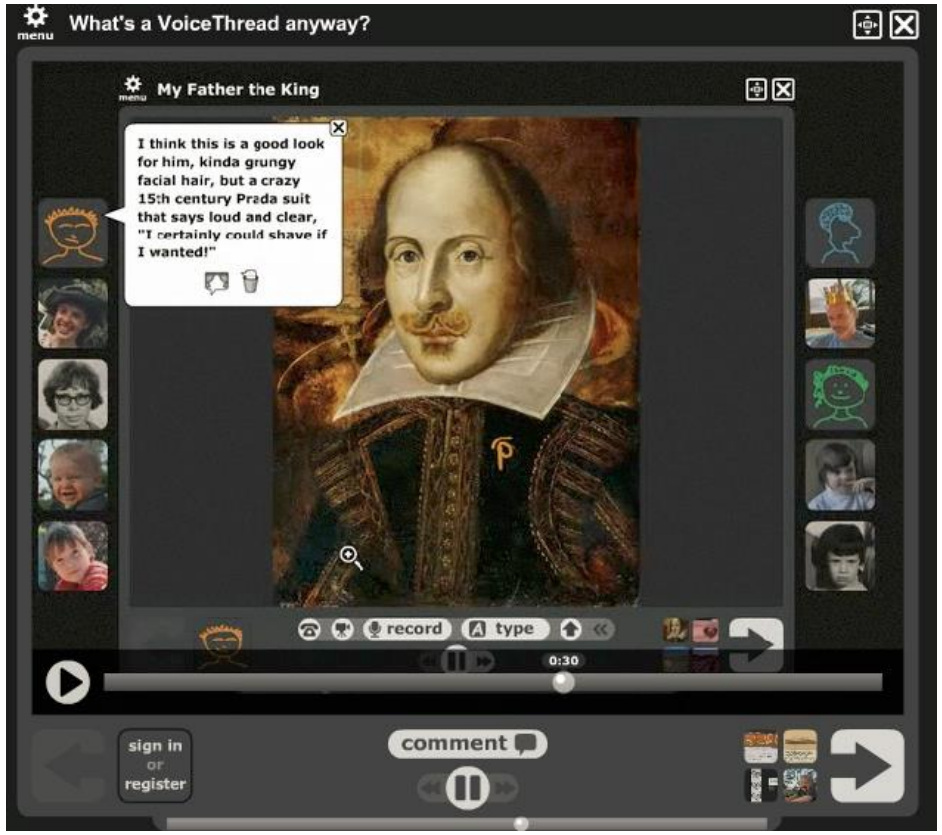
- 2nd-3rd grade: Create audio recordings of stories or poems
- 4th-6th grade: Use multimedia to enhance the development of themes and clarify information
- 7th-8th grade: Use multimedia to clarify claims and findings and emphasize salient points

Speaking and Listening: 2nd-3rd Grade



- LittleBirdTales.com allows students to:
  - Write a story
  - Add pages with text and illustration
  - Record the voice reading the story
  - Publish

Speaking and Listening: 4th-8th Grade



- VoiceThread combines:
  - Images
  - Documents
  - Video
  - Voice
  - Text
  - Audio files

All through online collaboration!

Technology is even embedded in math!
Any ideas how it could be used there?

Standards for Mathematical Practice

- Make sense of problems and persevere in solving them
- Model with mathematics
- Use appropriate tools strategically

Make Sense of Problems…

Ask a question, and Wolfram Alpha will show you the answer.

Simplify the following:
$\frac{2}{5}+\frac{4}{7}$

Put the fractions in $\frac{2}{5}+\frac{4}{7}$ over a common denominator.

Put $\frac{2}{5}+\frac{4}{7}$ over the common denominator 35: $\frac{2}{5}+\frac{4}{7}=\frac{7\times2}{35}+\frac{5\times4}{35}$:
$\frac{7\times2}{35}+\frac{5\times4}{35}$

Multiply 7 and 2 together.

$7\times2=14$:
$\frac{\boxed{14}}{35}+\frac{5\times4}{35}$

Multiply 5 and 4 together.

$5\times4=20$:
$\frac{14}{35}+\frac{\boxed{20}}{35}$

Add the fractions over a common denominator to a single fraction.

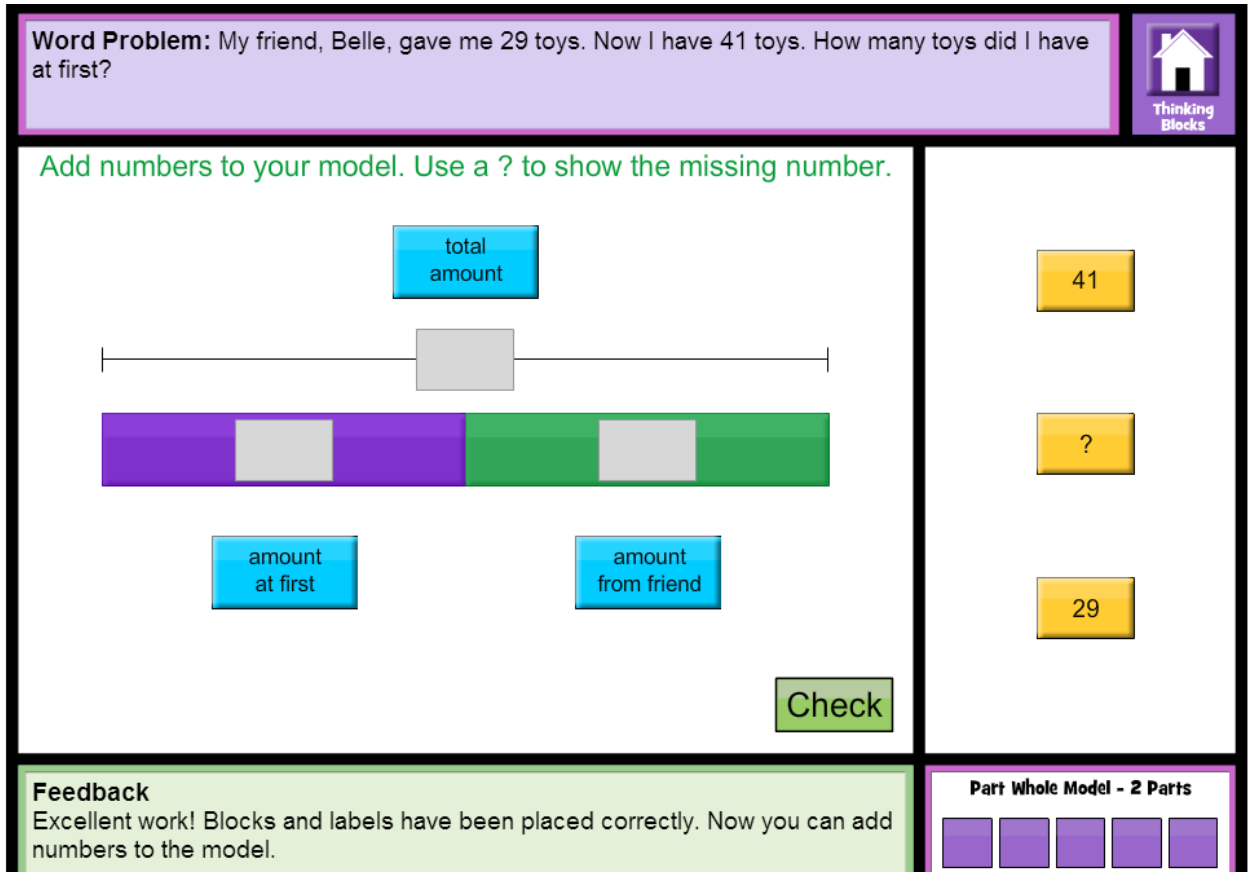
$\frac{14}{35}+\frac{20}{35}=\frac{14+20}{35}$:
$\frac{14+20}{35}$

Evaluate $14+20$ using long addition.

$\begin{array}{r} 2\ 0 \\ +\ 1\ 4 \\ \hline 3\ 4 \end{array}$:

Answer:
$\frac{\boxed{34}}{35}$

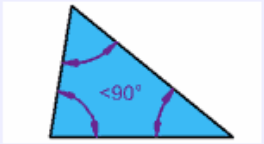
Model with Math…



Use Appropriate Tools…

Acute Triangle

more …

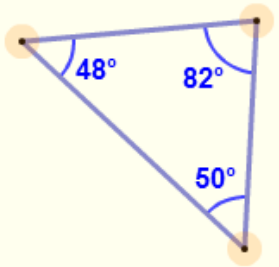


A triangle that has all angles less than 90° (90° is called a Right Angle)

See: Obtuse Triangle

(Drag the points for different triangles)

Acute Triangle



All angles are less than 90°.

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Reset

How often does your career require complex math equations be completed without access to any tools, even a calculator?

In Closing…

The Common Core standards don't just suggest novel technology use as a way to "engage students," but rather requires learners to make complex decisions about how, when, and why to use technology.

With the Common Core, technology integration is now a matter of law.

http://www.teachthought.com/technology/exactly-what-the-common-core-standards-say-about-technology/