21ST CENTURY DOROTHY

LITERACY-LINKED STEAM PROGRAMMING

Science echnology Engineering Art Math







Little library....



BIG impact!



Westford Public Library







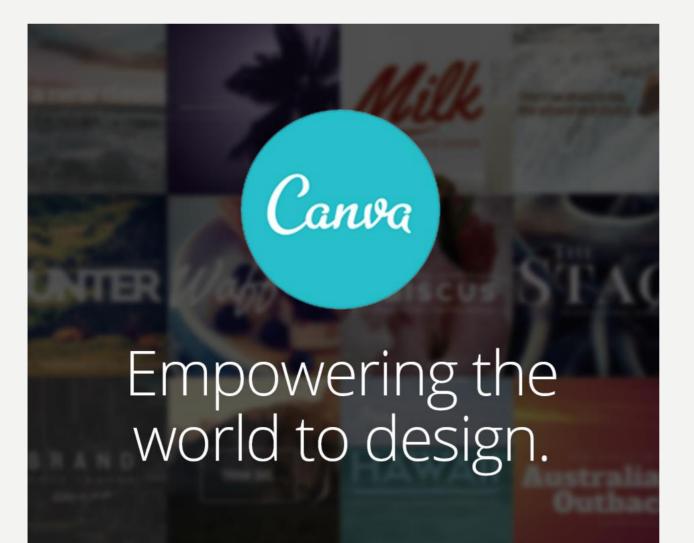




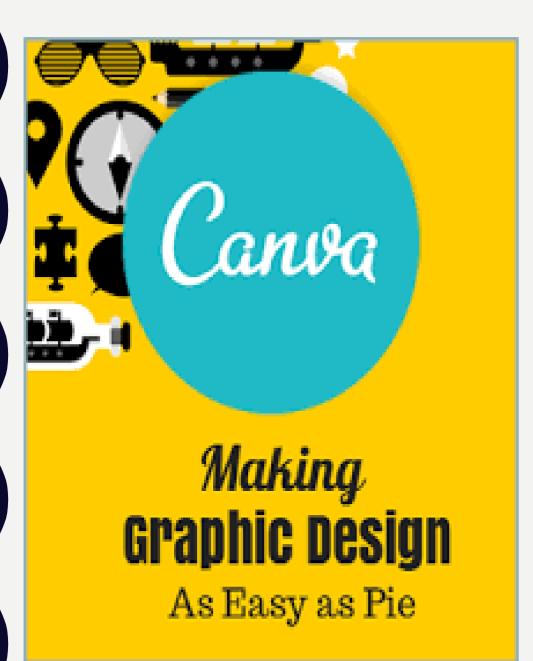




Technology & Art - Alternative Book Covers with Canva



- Canva is FREE
- Intuitive and easy to use
- Canva is available for iPads, tablets, and desktops
- Easy to share images, email them, and post to groups or social media



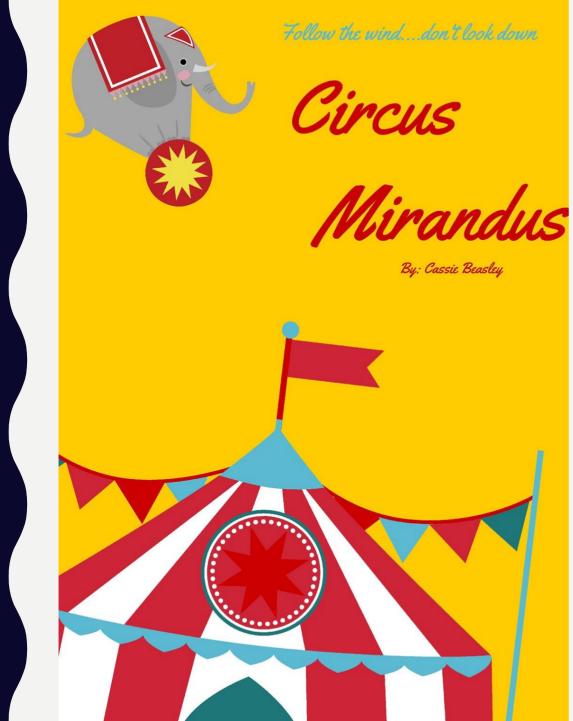
How to use with Dorothy's List?

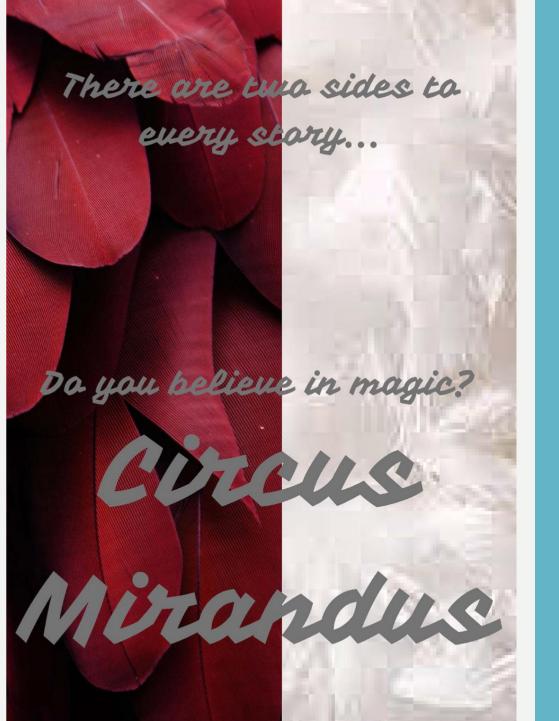
Use Canva to make alternative book covers!

- Shows kids read to understand deeper meaning
- Explore symbolism
- Incorporate design elements, talk about what "sells" in the book world
- Conversations around copyrighted images
- Have a contest
- Great as a summation activity for book groups

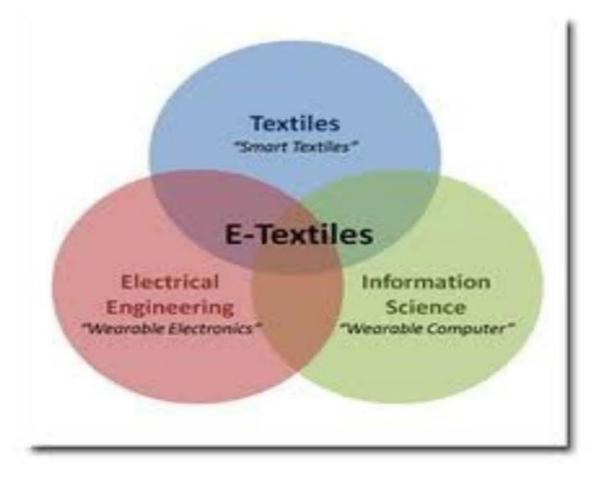






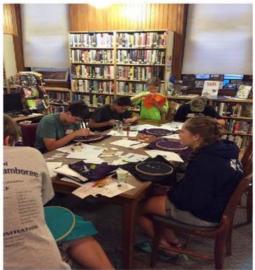


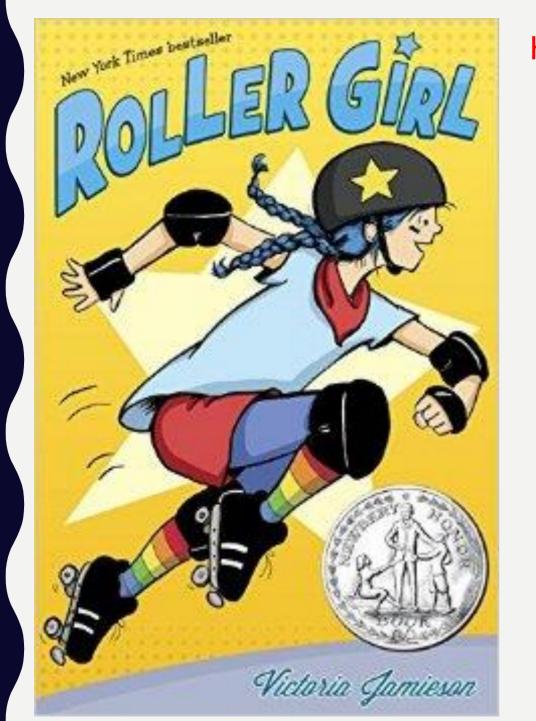
Technology (Electricity!) and Art - eTextiles



Here are some of the tools I use for e-textiles and an example of a project I have done. E-textiles is best done with older kids (10 or older). Prior knowledge of very basic sewing is a plus but not essential. These projects take at least 2 hours. PS - I'm a terrible seamstress!







How to use e-textiles with Dorothy's List?

The "Rainbow Byte" eBadge (do you appreciate the clever pun?)







You don't really need a lot of supplies:

Felt, safety pins, embroidery thread (all of which you might have) Basic sewing supplies

Conductive thread, LEDs, coin cell batteries (easy to get on Amazon) SEWABLE coin cell battery holders (Adafruit.com)

Patience (might be harder to come by with this age group) 2 hours or three class periods (basic sewing + design + circuit)

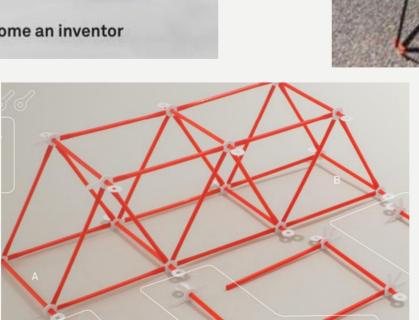


If sewing is not your thing - or you don't think you can convince your kids to do it - then you can do a very similar project with cardstock, LEDS and copper tape.



Engineering







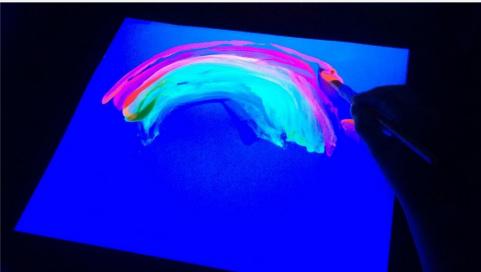


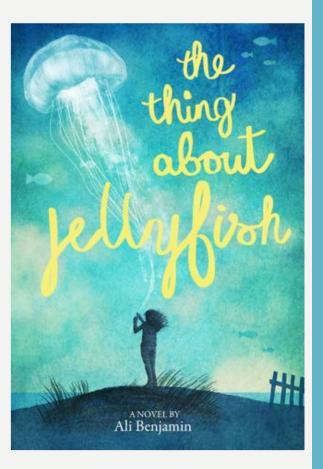


Science (Chemistry) and Art



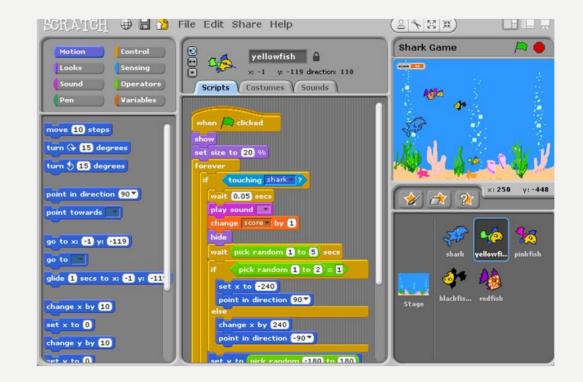






Math, Technology, and Storytelling





Technology and Storytelling



- ★ Inexpensive (\$1.99)
- ★ Easy to Use
- ★ Use your own pictures or download
- ★ Creative
- ★ Fun!

How to use with Dorothy's List?

- \star Retell a scene from the book
- \star Make an alternative ending









Photo Sketch

Photo Sketch is a simple,funny and professional app that lets you convert your photos into sketches or cartoon avatars by applying up to 20 different image effects filters.





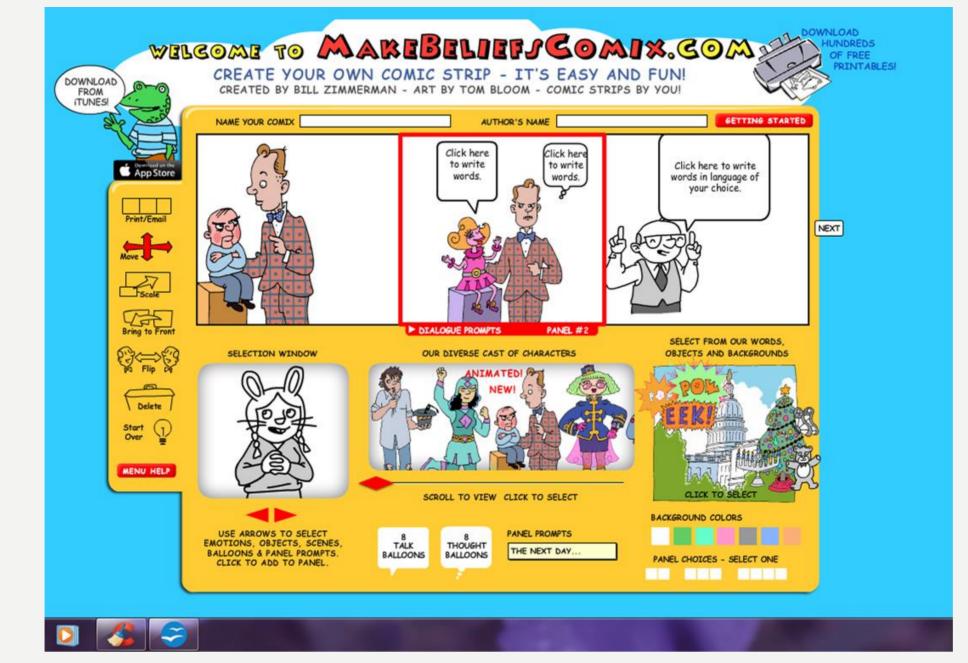








Its The combination of I'm telling words I It's all you its Say May a toad bate your tongue! only the word the about the Context. choice a 2 0 0 I'll give you some tions Kids! Add in your own word clouds HMMP to tell the 0 story 0 \bigcirc 8 Seriously?

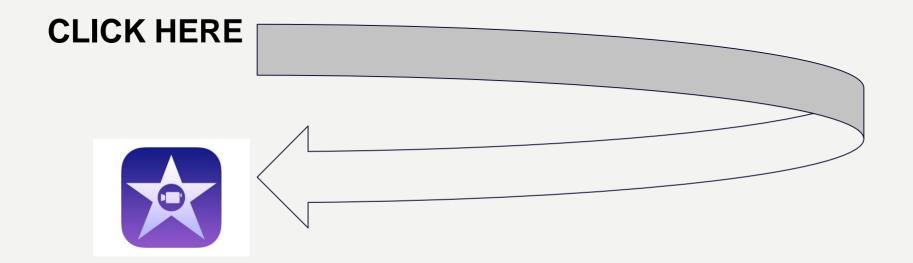




iMovie

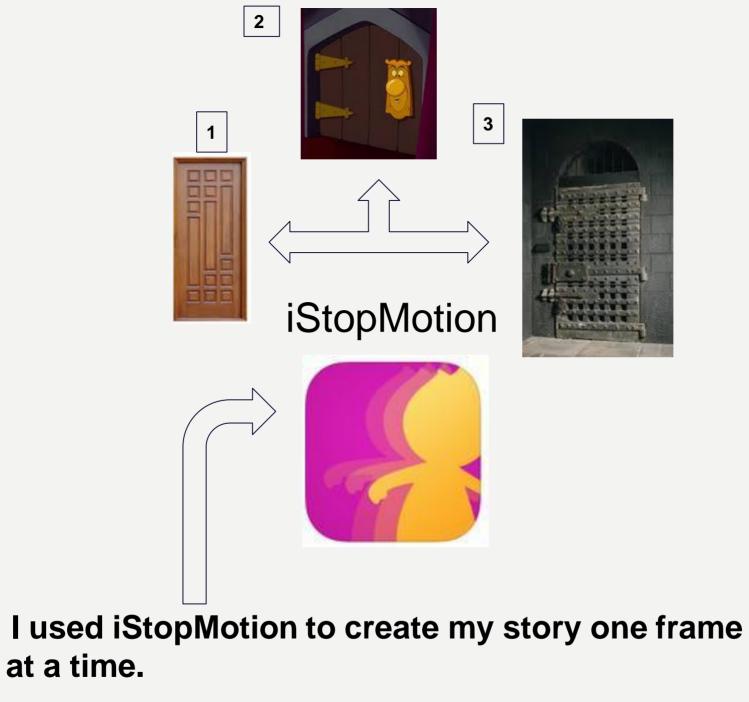
Create your own movie or movie trailer. My iPhone 6 was used to create the following trailer...











Create a Claymation or Stop-Motion Video

- \star Make a plan write a script and create a storyboard.
- **★** Gather materials. (clay, foil, pipe-cleaners, movie-making device and app, table, light, cardboard, tape)
- \star Create your figures and a backdrop.
- **★** Start shooting pictures, lots of them! (12 frames per second choppy, 24 fps smooth)
- ★ View and edit (if needed) what you've created often.
- ★ Use Apps editing tools to add effects and music.
- ★ Be patient and have fun! The results are worth it!
- ★ Share your work. More detail can be found on these 3 sites wikiHow
- **8 Great iPad Apps for creating stop motion videos.**
- A bit of online research can go a long way when it comes to finding "the best stop-motion app."

Toy Hacking and

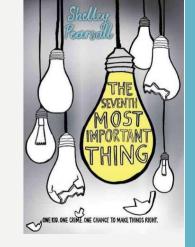


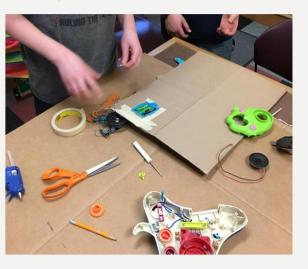
Deconstruction vs destruction Disassemble vs. destroy Construction = Build = Create Innovation











Deconstruction vs. destruction

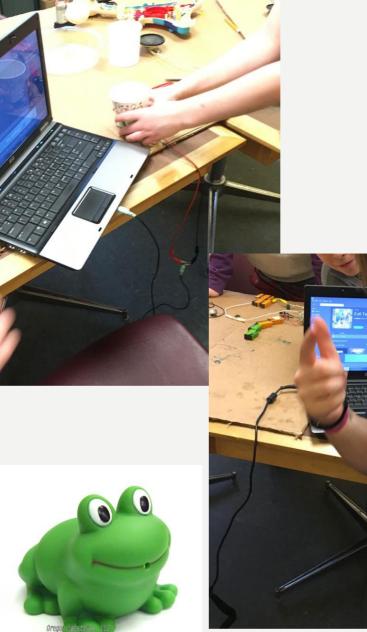
Disassemble vs. destroy

Construction = Build = Create

Innovation

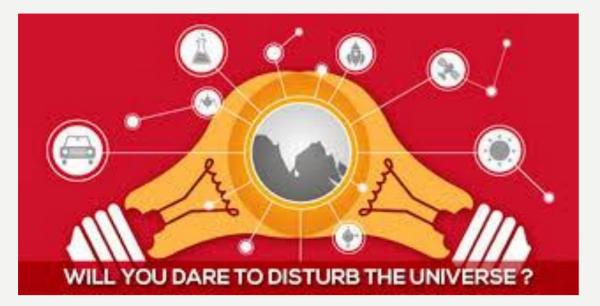


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• Fail Forward – Don't be afraid of mistakes!



STEAM Playground

WRAP-UP

Resources:

Sam: sam@rockinghamlibrary.org

Bree: westfordpubliclibrary@gmail.com

Thad: drmlthad@gmail.com

Vermont Library Maker Spaces:

http://libraries.vermont.gov/node/186 <u>6</u>

Contact Mara Siegel to become part of the Facebook page.