

# Innovative Programming



With Making and STEAM

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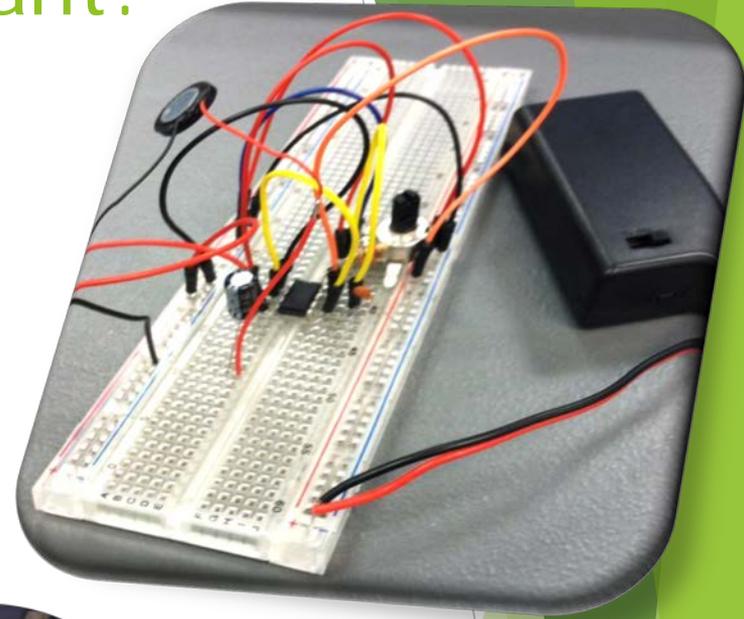
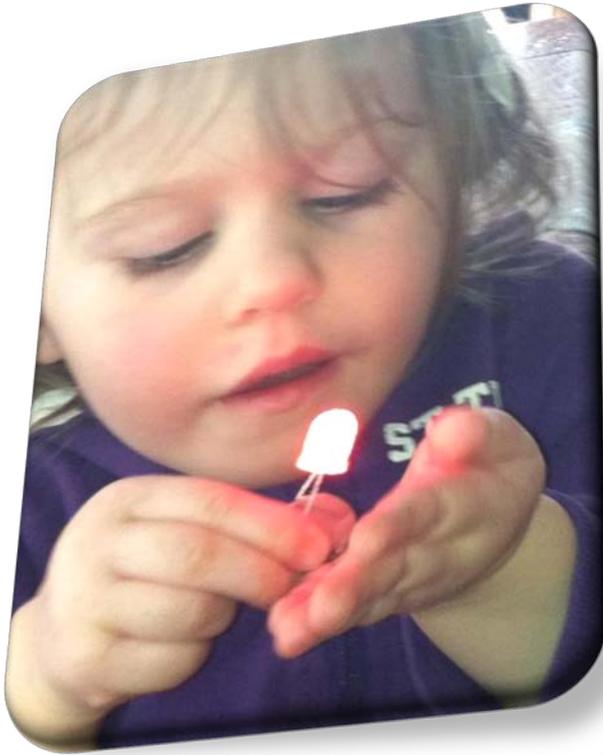
INSTITUTE of  
Museum and Library  
SERVICES

## Desired Outcomes:

1. Introduce participants to a variety of activities which foster critical thinking and creativity.
2. Present new tools, technologies, and materials for use in out-of-school programming.
3. Inform participants about the importance of making -- aka experiential learning -- for children of all ages.

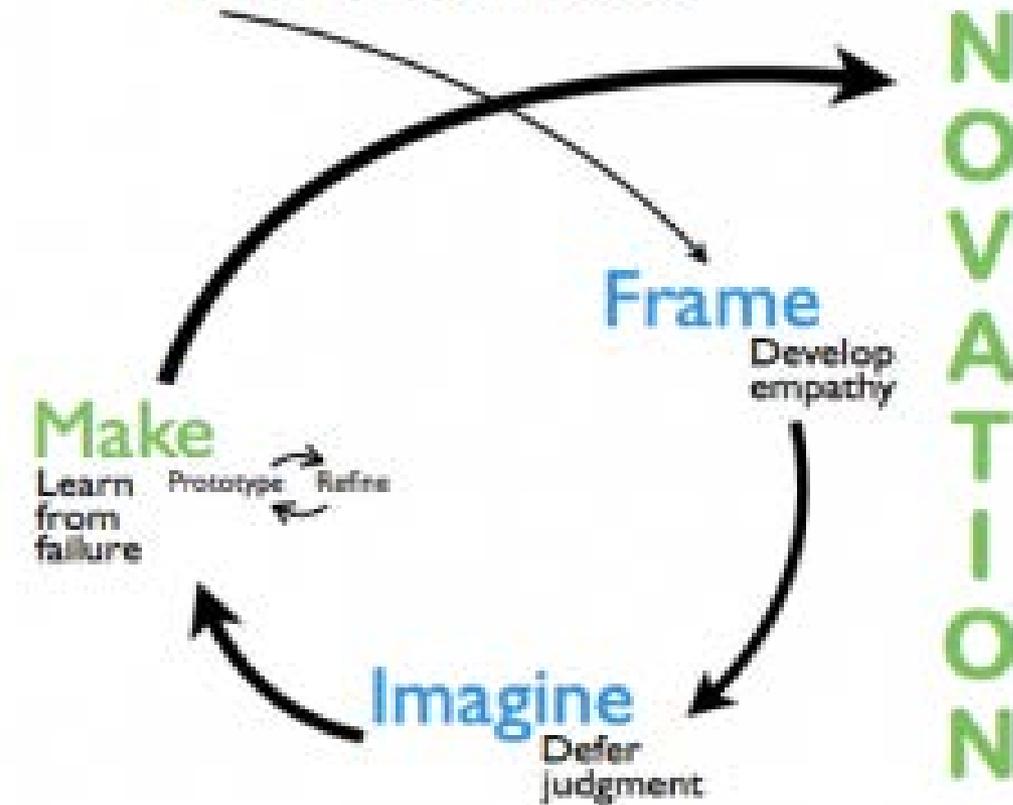


# What is making and why is it important?



# Design Thinking

## The DESIGN THINKING PROCESS



# What does making look like?





# The Making Environment



It might be messy...

...and a bit noisier...

...but it sure is fun!



Possibility Walls!



# MaKey MaKey Mayhem

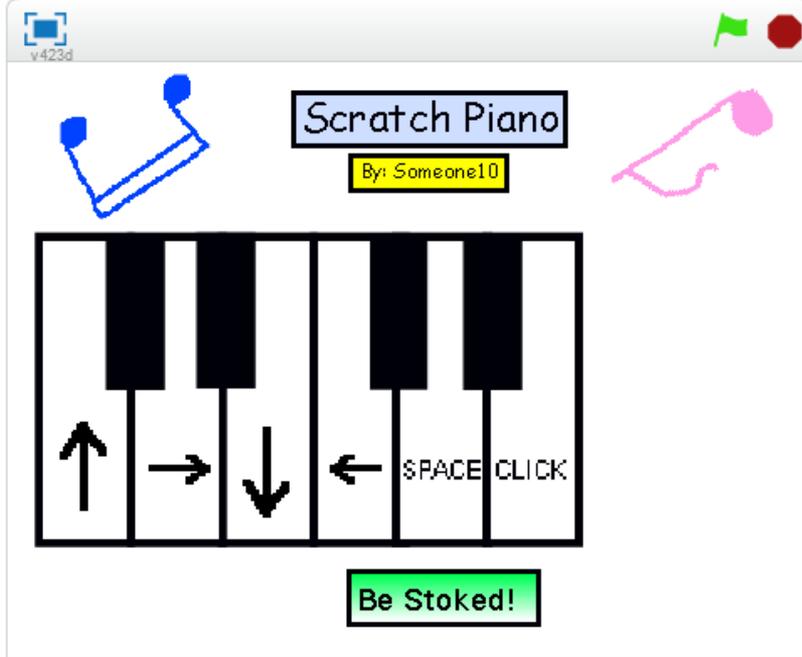


Whack-a-Mole with Potatoes

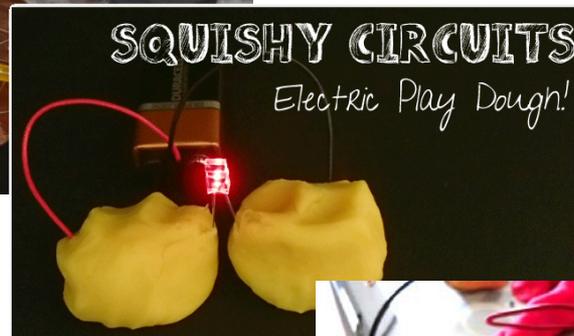
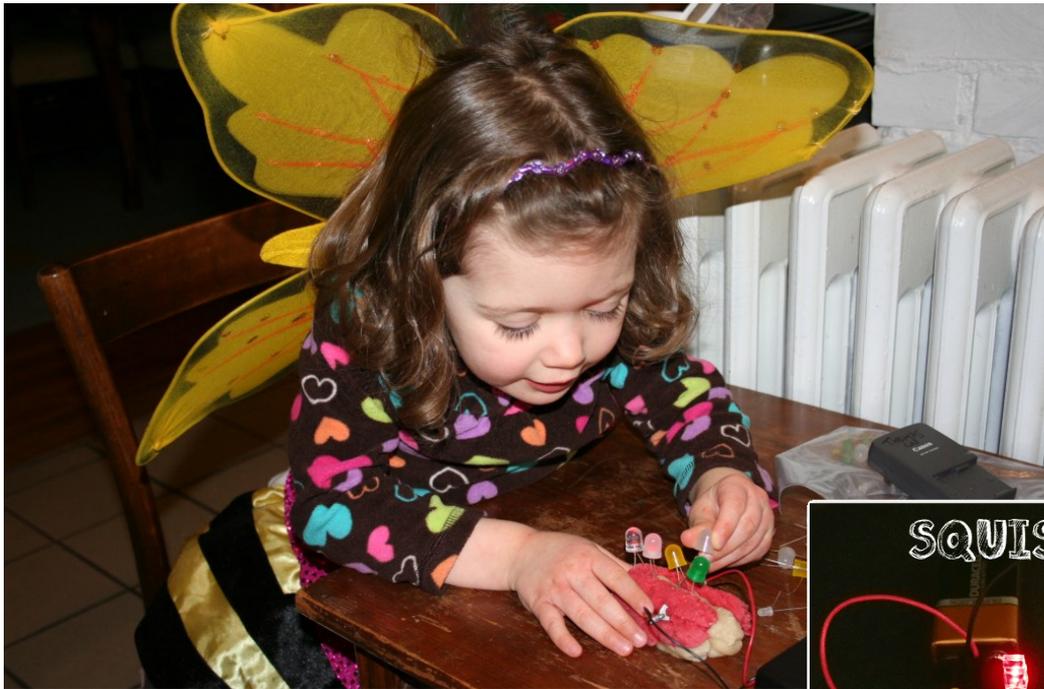
<http://bluntbody.com/whack-a-potato/>

## MaKey MaKey Piano-2

remixed by ericr



# Squishy Circuits Fun



Teaching Basic Circuits

<http://courseweb.stthomas.edu/apthomas/SquishyCircuits/PDFs/Circuit%20Basics.pdf>

# Catapults!!



<http://www.pinterest.com/explore/catapult-craft/>



<http://kidsactivitiesblog.com/28664/building-a-catapult>





# De - con - struc - tion



# Circuits Boards





# Circuit Stickers... Crafting with Electricity



<http://chibitronics.com>



# More Possibilities...



# Let's Play!



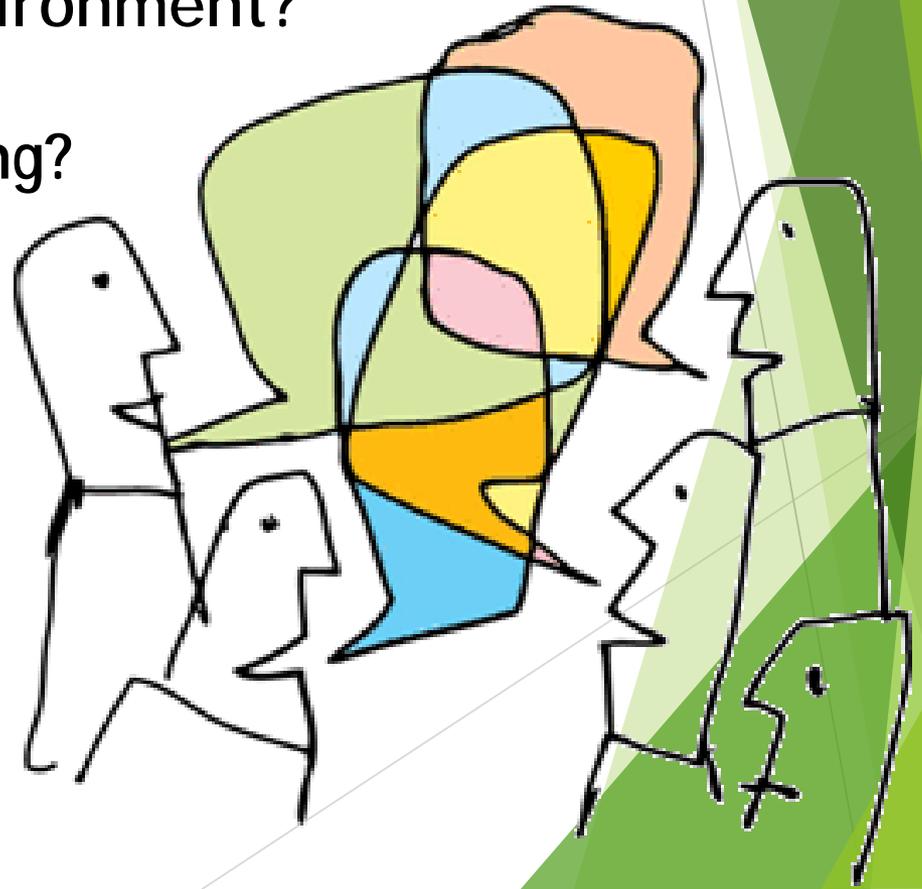
# Discussion Time

What did you think?

How do you see this working in your classroom or learning environment?

Any concerns about making?

Any Questions?



# Integrating Making



[weareteachers.com/blogs/stem](http://weareteachers.com/blogs/stem)

[sdpk.stvrain.k12.co.us/stem.html](http://sdpk.stvrain.k12.co.us/stem.html)

[weareteachers.com/hot-topics/special-reports/stem-for-elementary-school](http://weareteachers.com/hot-topics/special-reports/stem-for-elementary-school)

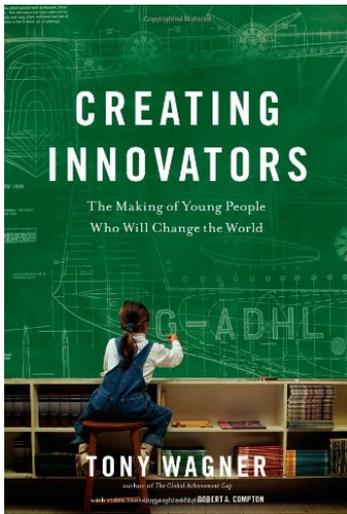


# Global Cardboard Challenge

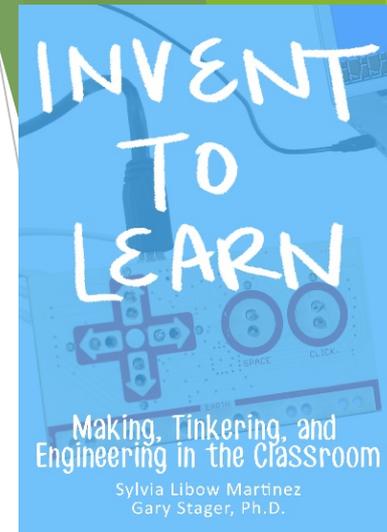
<http://cainesarcade.com>



# Resources



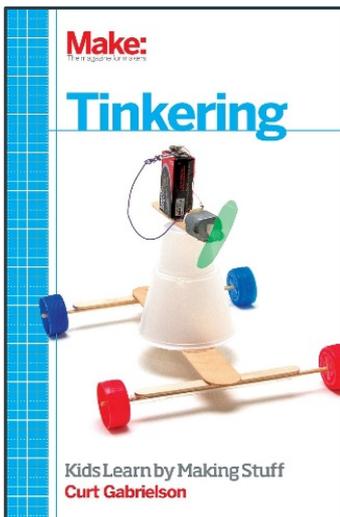
<http://www.bostonchildrensmuseum.org/sites/default/files/pdfs/STEMGuide.pdf>



<http://www.pbs.org/wholechild/providers/play.html>

**Maker Education Initiative**

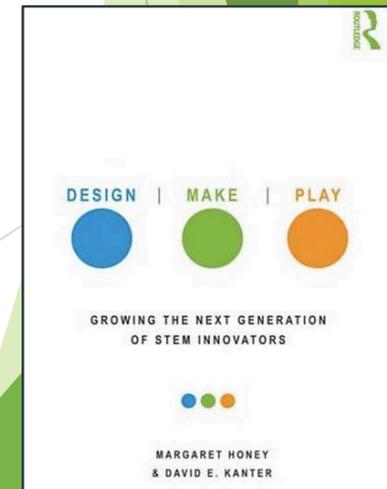
EVERY CHILD A MAKER



<http://ecrp.uiuc.edu/beyond/seed/katz.html>

<http://makeymakey.com/guides/>

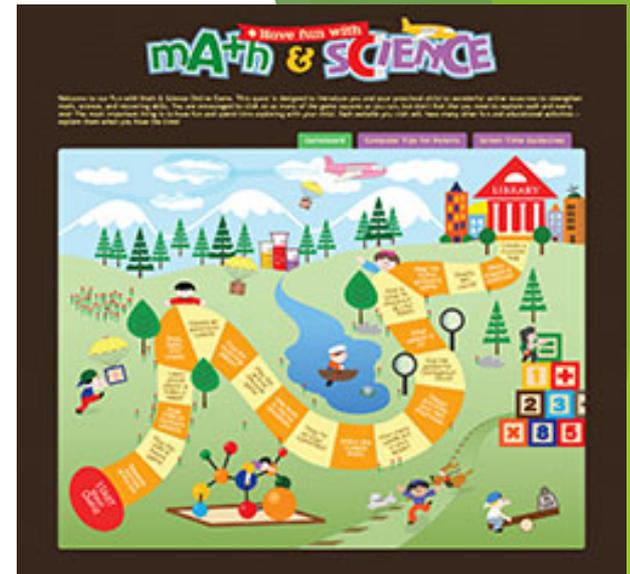
<http://www.makerkids.ca/>



# Online Resources



**Virtual Storytimes!**

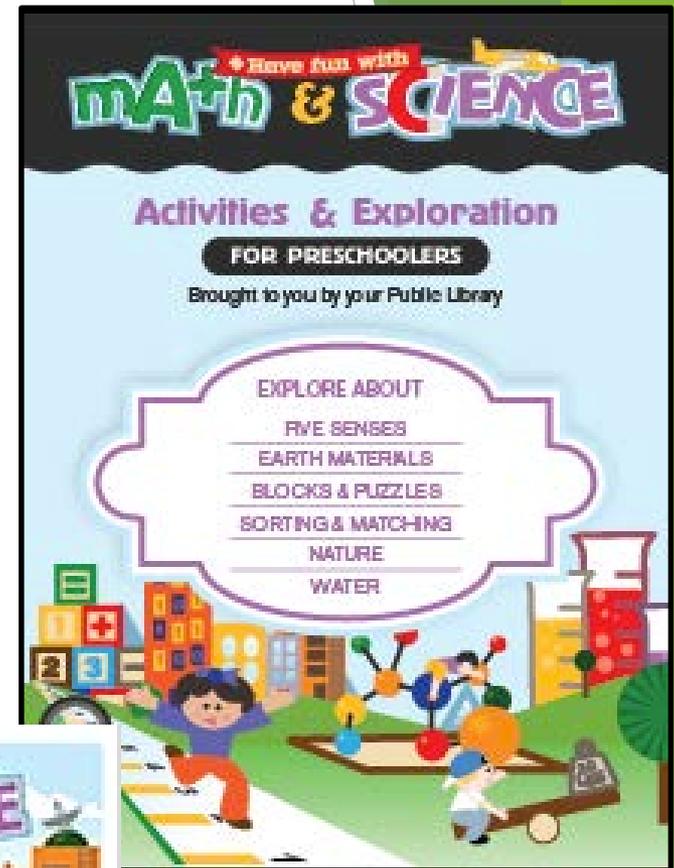
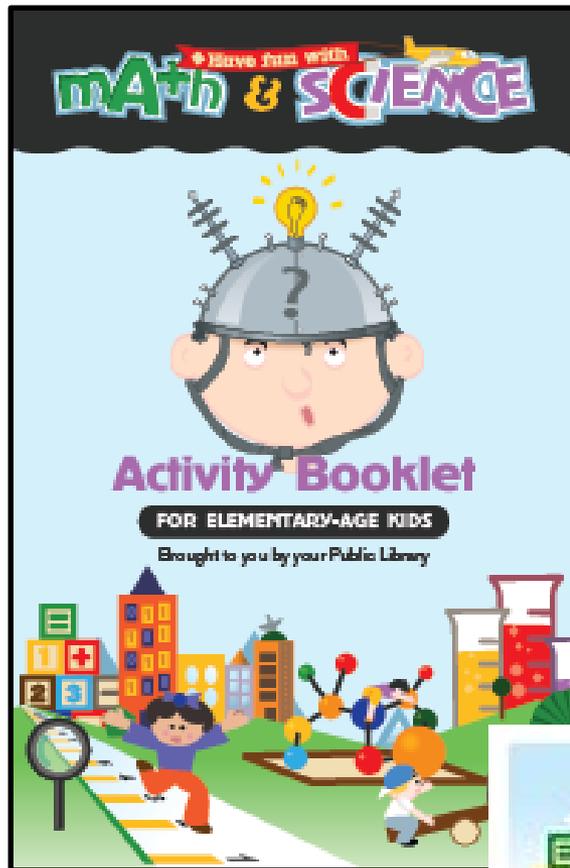


**Online Gameboard!**



**Online Books!**

# Other Resources Available – just ask your local public library!



## **You are a designer.**

Become more intentional about your design process.

Be confident in your creative abilities.

Be strategic about what needs attention first.

Listen to your stakeholders and be inspired to design for them.

It's your opportunity, and your responsibility, to have an impact on the lives of your students and be part of changing and growing the system.

## **Stepping out of your zone of comfort = learning.**

Get unstuck.

Break your routine.

Use the world outside your classroom to invigorate your work.

Analagous inspiration is your best friend.

Leave your classroom.

Collaborate with others.

## **Embrace your beginner's mind.**

Approach problems as a novice even if you already know a lot about them.

Let yourself learn.

Be willing to experiment.

Be ok with not having the "right" answer. Trust that you'll find one.

## **Problems are just opportunities for design in disguise.**

Have an abundance mentality.

Be optimistic.

Believe the future will be better.

Start with, "What if?" instead of "What's wrong?"

**WHAT  
WILL  
YOU  
MAKE?**

