

#### I create I learn Blog

Elementary Level Design Resource: <a href="http://pbskids.org/designsquad/">http://pbskids.org/designsquad/</a>

Learning Experiences: Constructing Modern Knowledge (associated with Invent to Learn)

Book Resources:
Invent to Learn

Website: http://cmkpress.com/invent-to-learn/

<u>Learn like a pirate</u> by Paul Solarz (5th grade teacher in Arlington Heights, IL - SD25)

# Design Thinking

https://docs.google.com/document/d/1x1DJBi-ATNvTvUCkGvIDy atnbgLrOfVOXiHHrr3TZU/edit

The Maker Movement Manifesto - Mark Hatch Techshop ISBN 9780071821124

Makerspace Dream List

Makeerspace Challenge Cards from Metc 2016

Makerspace rotation stations

Redesign Your Classroom Learning Spaces and Make Room For Makerspaces SLATE Preso

### EnergyStick (could scaffold with Makey Makey)

http://www.stevespanglerscience.com/store/energy-stick.html

http://www.arborsci.com/cool/fun-and-engaging-activities-using-the-energy-stick

Children's literature that works with Makerspace lessons:

Not a Box

This is Sadie

Beautiful Oops

Hands (Lois Ehlert)

The Most Magnificent Thing

#### More books highlighting creativity

https://www.goodreads.com/review/list/938799?shelf=creativity (warning - includes titles for older students/adults so don't assume it's appropriate for elementary without reading summary)

## Raspberry Pi Resource:

https://www.youtube.com/watch?v=RohDs tfWN0

Raspberry Pi can be used on other side as an Arduino.

### Makerspace radio broadcasts:

http://www.bamradionetwork.com/search?searchphrase=all&searchword=makerspace



My youtube list of makerspace research/background (still being added to as I work on a project): https://www.youtube.com/playlist?list=PLrHxdJwShWNnmZac4 OyugHxCrL59qSwt

Some ideas on implementation as discussed in the session:

- Using maker centers
- Set up explorations
- In Verona, set up for morning & afternoon recess, held over 4 days, students work in groups
- Let students explore--do not guide
- Stoughton K-5: emphasize the design process, putting thoughtful process first, hold mini-lessons on how things work, display choices and allow experimentation,
- Don't leap into technology
- Find ways to fight make&take (such as photographs, video, etc of projects), recommendation to start year in cardboards
- Promote sharing tools and resources
- Display choices and allow experimentation
- Help students learn to ask questions

#### Event Ideas:

- Night of Code for parents
- Technology Petting Zoo (or Maker Petting Zoo) for staff
- Maker Faire with a science fair
- Digital Learning Fair with student leaders

Sphero & Little Bits are good about replacing broken equipment

# Looking for materials:

Check for underused curricular materials (science, manipulatives, etc).

Thriftstores/garage sales/school collection of items

Donorschoose