TINKERING & MAKING WITH STEM
IN THE EARLY CHILDHOOD CLASSROOM

Saturday October 20th, 2018
Get STEAMed Early Literacy Library Conference
Fairfax County Public Library
Tinkering vs. Making vs. Engineering

The Design Thinking Process

Design Thinking is an iterative process. Every step of the way is iterative. What we learn in one step of the process may cause us to go back and refine what we learned in a previous step. Especially when we prototype our ideas and see people interacting with it. We may discover that we may need to go back to the beginning and learn more about our target audience. Design Thinking is a cycle. Once we have implemented our solution – a product or service or other experience – we still get feedback from our customers, learn and improve the user experience or make new experiences.
Creating a Makerspace for Early Childhood Learners

Tools: Child safety goggles, low-temperature glue guns, measuring tapes, rulers, scissors, funnels, child size hammers, pliers, screwdrivers, etc.

Materials:
- **For building:** popsicle sticks, straws, paper plates and cups, corks, wood scraps, pipe cleaners
- **For Connecting:** A variety of tapes such as masking, duct, and cellophane, staplers, glue sticks, beads, string, clothespins, rubber bands, paper clips and binder clips
- **Sculpting:** modeling clay, play dough, and tools such as rolling pins, plastic knives
- **Mixing tools:** plastic bowls, spoons, pitchers, and ingredients for science exploration such as cornstarch, and vinegar
- **Fabrics and decoration:** pom-poms, feathers, buttons, fabric scraps, felt,
- **Writing materials:** markers, pencils, pens, crayons
- **Electronics and technology:** batteries (keep in a battery holder) flashlights, beginning circuitry kits (These items would be for the more advanced engineers)
**Reflections on Tinkering, Making, & Engineering**

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<th>Traffic Light</th>
<th>What can you implement in your classroom immediately? (Or at least before the end of the 2017?)</th>
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<th>Person Connecting</th>
<th>What connections can you make with tinkering &amp; making and your curriculum? Where in your lesson planning might you use these ideas?</th>
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**Recommended Webinars to Learn More**

**NAEYC Webinar with Cate Heroman (recorded March 24, 2017)**

*Making and Tinkering with STEM*

[https://www.youtube.com/watch?v=65X2bEYCAIs](https://www.youtube.com/watch?v=65X2bEYCAIs)

**Cardboard Maker Shop**

Google Hangout Interview with Cate Heroman, hosted by Tinkering Studio’s Karen Wilkinson

[https://www.youtube.com/watch?v=Q5NMtTNF15o&t=4s](https://www.youtube.com/watch?v=Q5NMtTNF15o&t=4s)

**More Information and Workshops:**

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