YOUR GUIDE TO MAKER PROFESSIONAL DEVELOPMENT ACROSS THE PITTSBURGH REGION

Educators both in and out-of-school have many questions about how to get started in what’s often called the “Maker Movement.”

Questions like, “How do I use my 3d printer?” or “What are activities and lessons I could use?” or “How do I build a makerspace on a budget?” or “How do I know my kids are learning while making?”

Luckily there is professional development across the Greater Pittsburgh region, most offered at low or no cost to educators, that can answer those very questions. Consider this document a “one-stop-shop” to understand your options.

To learn more about the professional development offered by each of the organizations in this document, please visit their websites or look them up on www.remakelearning.org.

Happy Making!

EDUCATORS
73.1% of programs are suitable for both in-school and out-of-school educators.

COST
77% of the region’s programs typically cost less than $100.

FLUENCY
84.6% of programs most commonly serve novice to intermediate makers.

FREQUENCY
Most organizations offer monthly or quarterly programming.

CREDITS
77% of the programs offer Act 48 credits.

ADDITIONAL RESOURCES
Looking for quick expert advice, lesson plans, activities, and general ideas related to maker education? Check out these free online resources!
ORGANIZATIONS

TOOLS & MATERIALS

STUDENT AGE

<table>
<thead>
<tr>
<th>STEAM</th>
<th>6-12</th>
<th>Adult</th>
<th>Electronics/ Circuits</th>
<th>Fabric/ Textiles</th>
<th>Woodworking</th>
<th>Digital Fabrication (3D printing)</th>
<th>Digital Production (music, media, etc.)</th>
<th>Everyday Objects</th>
<th>Coding</th>
<th>Pick &amp; Place</th>
<th>Manipulation</th>
<th>Activities</th>
<th>Critical Thinking</th>
<th>Assessment</th>
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**ALLEGHENY INTERMEDIATE UNIT**
- transforms ED and transforms ED WEST offer maker and STEAM PD opportunities to regional teachers, and a STEAM Landing Library with classroom sets of technology available to borrow.
- Centerformative.net

**ASSET STEM EDUCATION**
- ASSET STEM Education equips all educators—including makers—with knowledge, skills and strategies through proven professional development.
- assetedc.org

**AVONWORTH**
- Studio A explores PBL using design thinking and art integration. Making in Primary Grades helps elementary teachers incorporate maker learning by embedding a specialist in classrooms.
- www.avw.net/pages/avonworth_School_District

**BIRDBRAIN TECHNOLOGIES**
- BirdBrain Technologies designs hands-on PD for educators to build & program a robot and integrate robotics across curricula using Hummingbird & Finch.
- www.birdbraintechnologies.com

**CARNEGIE SCIENCE CENTER**
- The Teaching Excellence Academy offers opportunities for educators in all grade levels, with specific workshops in STEM, early learner education, and the engineering design process.
- www.carnegiesciencecenter.org

**CHARTIERS VALLEY**
- Chartiers Valley hosts summer Project Lead The Way training for high school, middle school and elementary school teachers.
- www.cvcsd.net

**CHILDREN’S MUSEUM OF PITTSBURGH**
- Makedo Camp is a fun day experience for classroom teachers, informal educators and museum professionals who seek a deep understanding of the philosophy and practice of making.
- www.makeshopgh.com

**EDCAMP PGH**
- The goal of edcampPGH is to foster conversations that improve learning opportunities and support ideas for deeper community connections in and out of traditional school settings.
- sites.google.com/a/makemcfrn.org/edcampapg

**ELIZABETH FORWARD**
- Pittsburgh FAB Lab/Network supports educators in digital fabrication and other maker skills, whether or not they already have a FAB Lab or makepace in their educational setting.
- www.efhol.net/pages/Elizabeth_Forward

**FOX CHAPEL AREA SCHOOL DISTRICT**
- Fox Chapel Area School District offers training in digital fabrication, Code.org, early childhood maker pedagogy & infusing robotics in elementary grades.
- tech4fca.org

**INTERMEDIATE UNIT 1**
- IUL offers PD in Fayette, Greene, and Washington counties integrating innovation, design, and digital fabrication to meet the needs of students and educators within an MIT-certified Fab Lab.
- www.iu1.org

**PITTSBURGH ASSOCIATION FOR THE EDUCATION OF YOUNG CHILDREN**
- The Pittsburgh Association for the Education of Young Children (PAEYC) provides training to early childhood and elementary educators in digital tools, making, & more.
- www.paeyc.org

**PITTSBURGH CENTER FOR CREATIVE REUSE**
- Pittsburgh Center for Creative Reuse is a resource for inexpensive reclaimed creative materials, and a provider of education about using reclaimed materials in learning environments.
- www.pccr.org

**PITTSBURGH FILMMAKERS / PITTSBURGH CENTER FOR THE ARTS**
- PIFCA provides comprehensive media and art education in the form of innovative classes and hands-on workshops for adults, and outreach programs with schools and community partners.
- filmmakers.pfpca.org

**QUEEN VALLEY SCHOOL DISTRICT**
- Quaker Valley partnered with Cognizant Technology Solutions to create a regional teacher study group committed to assessment and documentation of maker-centered learning.
- www.qvsd.org

**SOUTH FAYETTE**
- The South Fayette STEAM Innovation Summer Institute provides professional development opportunities to area learning institutions in transforming education through innovation.
- www.southfayette.org

**TECHSHOP**
- TechShop offers professional development on laser cutting, ShopBot, and Adobe Illustrator for CNC. Makepace startup support also available.
- www.techshop.us/pittsburgh.html

**WESTERN PENNSYLVANIA WRITING PROJECT**
- The WPWP offers a Summer Institute, providing teachers a strong foundation in teaching writing as well as skills in digital notebooking and other STEAM tools and technologies.
- www.wpwp.pitt.edu

**WEST LIBERTY UNIVERSITY**
- The Center for Arts and Education at West Liberty University is a multi-faceted hands-on learning laboratory and resource center focused on the integration of the arts, creativity, and technology.
- https://westliberty.edu/education/center-for-arts-education