



Creating a Makerspace Training to Go



Objectives

- Identify what a makerspace looks like and how it can support the STEAM approach to learning.
- Plan key logistics for creating a makerspace, including budget, schedule, materials and professional development.
- Describe ways to assess student learning in a makerspace.



Discuss



- What do you think of when you imagine a makerspace?
- What is “making”?





What Is “Making”?

- Grassroots movement
- Focused on experiential learning
- Creative, imaginative and inventive



Characteristics of Makerspaces



YOU FOR YOUTH



- Flexible
- Supports differentiated learning
- Provides a variety of materials and options
- Supports self-directed learning
- Fosters innovation
- Noncompetitive, fun and meaningful

Choosing Your Makerspace Materials



YOU FOR YOUTH



- What materials would you include in your makerspace?
- Why did you choose these materials?



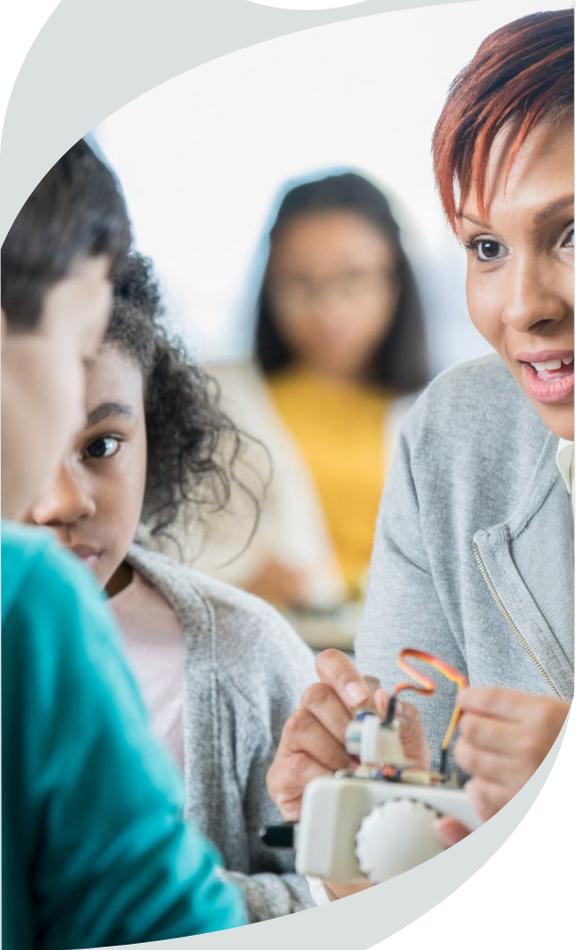
Makerspace Material Examples



- Popsicle sticks
- Duct tape
- Batteries
- Toothpicks
- Pipe cleaners
- Beads
- Marbles
- Coding software
- 3D printers
- Soldering tools
- Electronics
- Robot building materials
- Circuits and electrical components
- Woodworking materials



Managing a Makerspace



- Set norms.
- Set safety procedures.
- Schedule reflection sessions.

Makerspace Logistics



- Budget
- Schedule
- Materials
- Professional Development



Budget



- How much professional learning will we need to provide?
- How many hours a week are we offering the activity?
- What supplies and materials might we need?
- Do we want to add any packaged curriculums?
- Will we engage any vendors that will need to be paid?





Schedule



TIME		Monday		Tuesday		Wednesday		Thursday	Friday
4:00-5:30 p.m.	Grade	Activity Name	Grade	Activity Name	Grade	Activity Name	Grade	Activity Name	
Academic Enrichment	K-1st	123 Look At Me	K/1st	STEAM	K/1st	123 Look At Me	K/1st	STEAM	All Friday activity schedule
	K-1st	STEAM	K/1st	Music & Movement	K/1st	STEAM	K/1st	Music & Movement	unique to campus
	1st-2nd	Readers Theater I	1st/2nd	STEAM	1st/2nd	Readers Theater I	1st/2nd	STEAM	
	1st-2nd	Claymation	1st/2nd	Music & Movement	1st/2nd	Claymation	1st/2nd	Music & Movement	Activities Offered:
	2nd-3rd	Let's Celebrate	2nd/3rd	STEAM	2nd/3rd	Let's Celebrate	2nd/3rd	STEAM	Challenge Centers
	2nd-3rd	For the Birds	2nd/3rd	Game Zone	2nd/3rd	For the Birds	2nd/3rd	Game Zone	Science Fair/History Fair
	3rd-4th	Survey Said	3rd/4th	STEAM	3rd/4th	Survey Said	3rd/4th	STEAM	Karaoke
	3rd-4th	Animation Station	3rd/4th	Readers Theater	3rd/4th	Animation Station	3rd/4th	Readers Theater	Music
	4th	So You Think You Can Dance	4th	Trash to Treasure	4th	So You Think You Can Dance	4th	Trash to Treasure	Dance



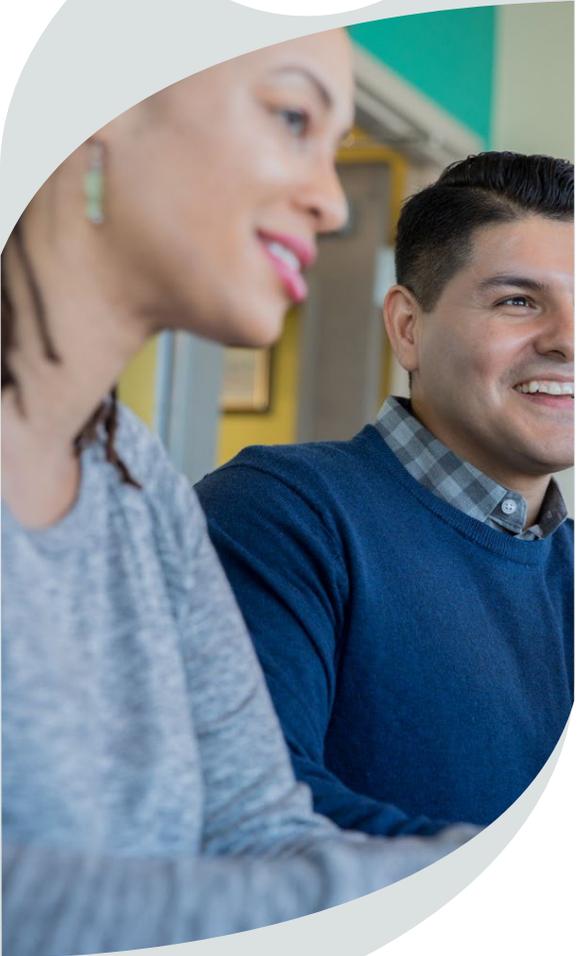
Materials

- Ask families to donate materials (e.g., empty plastic bottles, rubber bands, cardboard boxes).
- Reach out to local businesses.
- Think about simple everyday items.





Professional Development



- Connecting STEAM to Real-World Challenges
- Applying Design Thinking
- Creating a Makerspace

Let's Make Something!



YOU FOR YOUTH



Caine's Arcade: <http://cainesarcade.com/>



Activity Ideas



[HOME](#) [RUN A MAKERSPACE](#) [MAKER TOOLS](#) [CREATE PROJECTS](#) [TEACHER PD](#)

Idea Gallery

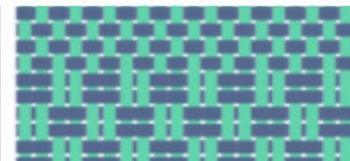
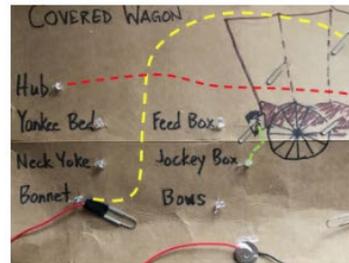
The **Idea Gallery** is a collection of adaptable, inspirational Maker project ideas that have been shared by K-12 Teachers and Maker-Educators. Projects all include images, and brief information on how the project can be used with students at one or more grade levels.

These adaptable project ideas are tagged by **Object** OR **Tool**, NOT by core subject area or grade level. **Objects** are the kinds of things that students will create and **Tools** are the specialized Maker tools and materials that students will use. Filter in a way that fits with your thinking process.

LATEST

FILTER BY TOOLS

FILTER BY OBJECTS





Y4Y Resources

Check out the Institute of Museum and Library Services STEM-Rich Afterschool Making Project on Y4Y!

CURRICULUM RESOURCES



STEM-Rich Making Afterschool Activity Guide



We are all Makers Makezines



MakerSpace for Education Curriculum Guide



LearnXDesign



Maker Ed Resource Library



PBS Kids Design Squad



The Tinkering Studio



Supporting the Teacher Maker Movement

DAY 1: JOURNAL MAKING

As an introductory activity, students will use a variety of tools to make personal journals and then personalize them with their own decorative flair using buttons, stickers or other recyclable materials.



WHAT IS A MAKER?



A REASON FOR MAKING





Tips for a Virtual Classroom



- Invite community members to a virtual meeting.
- Watch videos to get students ready and excited for the activity.
- Create reusable “science bags” for students.
- Host a virtual classroom with weekly activities.



Makerspace at Home Tips



- Get your families on board.
- Provide families with an orientation.
- Rethink the definition of a tool for virtual instruction.

Assessing Learning in Makerspaces



- Presentations
- Journals
- Portfolios
- Thought processes
- Resiliency
- Ability to work in a group
- Fulfilling requirements
- Rubrics



Next Steps



- What do you need to do to begin creating a makerspace in your program?
- What challenges might you encounter?
- What additional support do you need to get started?

