

Tips and Tricks for Building a Library Makerspace

Whether you are in the planning stages of building a makerspace in your library or you already have a busy makerspace, there is always room for improvement and new ideas.

Some questions to ask yourself:

- Why do you need or have a makerspace in your library?
- What are your goals for the makerspace? How does this align with your vision and goals for the library (or the school)?
- What space or mobile unit can you use in your library? How might you rearrange or adjust your physical space if you already have one?
- What equipment and tools can you start with or add to get teachers and students interested? What do you already have at your school or in your library that you can use to encourage students to start creating?
- When will students have access to the makerspace? Will this be something they can come by and experience at any time of day, or only set times?
- Which teachers can you collaborate with using the makerspace's tools and space?
- What types of lessons can you collaborate on or which lessons can stand alone in the makerspace?
- What safety procedures have you set up for your makerspace?
- What rules might you need to set in place to allow students the best experience?
- Which clubs or extracurricular programs can you collaborate with?
- Are there local or national contests students can participate in that you could promote and sponsor?

Where Do I Begin?

- You don't need a great deal of space to have a fun and effective makerspace.
 - Use a small table or desk.
 - Designate a special corner or space for students to use.
 - Materials can be stored in a crate, plastic bins, or a stackable drawer set.
 - Keep supplies for the makerspace project/activity organized and labeled.
 - Include printed instructions.
 - You may want to give step-by-step directions.
 - You may just want to show an example of a finished project.
 - You may want to provide hints to help students overcome obstacles.
 - A computer station can serve as a great place to start.
 - For example, go to Google Drawing and make something.
- Talk it up. Promote your space like you promote your library.
 - Let your students know that there are so many ways to learn.
 - Show them a finished project.
 - Create a short teaser video.
 - Challenge them to make or create something "better" than the example.
 - Better meaning stronger, taller, more colorful, etc.
 - Better meaning something that students have created from their imagination.
 - Make the space or activities in this space a privilege or coveted opportunity.
- Making is about curiosity, problem solving, and discovery.
 - Let your students struggle and get frustrated.
 - Don't do the project for them.
 - Set out supplies and encourage students to create something, anything, or something with a purpose or goal.
 - Give students freedom.
 - Continue to push students with questioning, "Why did you choose that strategy?" and/or "What can you do with your creation now?"
 - Introduce the idea to the whole class.
 - Give students an object to take apart and then put back together again so they see how it works.

I Have Everything, But How Do I Get My Students Started?

- Find a student who frequents the library or seems intrigued by the makerspace, but perhaps hasn't made anything yet.
 - Sometimes the simplest creation by a student entices other students.
 - Showcase a creation by the student and talk it up.
 - If the student who frequents the library is reluctant, show them something you have created.
- Pick a relevant yet simple lesson or activity for all age groups.
 - Think about something students could create that is relevant to what they are learning or what students enjoy outside of school (i.e., what is the latest trend or popular toy.)
 - Building students' confidence can lead to further curiosity.
 - A simple hands-on activity can give students the confidence from success that allows them to challenge their own creativity.
 - Encourage your students.
 - Now that they've achieved the outcome, what else could they create as they continue to build onto the final product?
 - Allow students the chance to show off their finished product to their peers, either formally or informally.
 - Create a gallery for student creations.
- Find a student to help model an activity or project, or who can assist their peers with the activity or project.
 - Sometimes students want encouragement or help from their own peers.
 - This is not to say that this student should be teaching. This is a student who has already finished an activity or project, and it should be someone you have worked with and who understands that they cannot do the activity or project for their peers.
- Make the lesson or activity collaborative and/or a competition.
 - Some students are driven by team competition.
 - Some students are afraid of messing up and need to watch others before feeling more confident in their own abilities.
 - Ensure that all students are participating in their own ways; assign roles if necessary.
- Find a teacher to collaborate with and tie the lesson or activity with the core curriculum.
 - Some students may only participate if it's required.
 - Creating a lesson in the makerspace as a part of the core curriculum can allow students to see the relevance of making to what they're learning.
 - Think about working with a science or English teacher to start.
 - Science teachers will find relevance in engineering activities.
 - English teachers will find relevance in storytelling, and you may already be collaborating with these teachers for library booktalks, essay writing, research, etc.

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