



toolkits

Steps to Creating an Amazing Make Space

Step 1: Get Up to Speed on Making

Dive deep into the K-12 Blueprint Maker & STEM Toolkit. Check out the resources and follow inspiring Makers such as Maker Camp and the Exploratorium's Tinkering Fundamentals. Explore coding with Arduino and Hour of Code. Try making some projects of your own: start simple to avoid frustration, and then get more sophisticated!

Step 2: Spread the Excitement

Get your peers interested in making. Start a club or committee for teachers to begin planning how making could be part of your school. Do research on how other schools are integrating Maker spaces into their curriculum. Based on this information, see how purchasing, goal setting and programming would translate to your school's unique situation. If possible, reach out to the community and motivated students to build momentum.

Step 3: Get Resources

Think about which Maker resources would get the most use at your school. Should you spend a lot of money on a 3-D printer, or—instead—use the money to buy a number of Arduino or littleBits kits? Write grants, plan fundraising events, or solicit donations (many stores are willing to donate broken electronics for projects and parents could have Lego sets they are no longer using). You can also use resources such as GoFundMe or DonorsChoose. Follow STEM and Maker accounts on Instagram, and Pinterest for affordable project ideas.

Step 4: Do An Inventory

Is your school 1:1 where every student has some type of device supported by consistent Wi-Fi, or are you BYOD, or a school with carts or even a dedicated computer lab? Does your school already have a woodworking room or a robotics team or a science department with any under-utilized tools or resources? You might already have a lot of Maker resources available.

Step 5: Make a Maker Community

Talk about making with students and be sure your school library is stocked with Maker-related books so that kids can become motivated and inspired. Bring Maker tools and resources into class so that students can become familiar with them. Start them on a few simple projects, either in class or after-school in the library. Make these tools easily accessible and create easy storage to avoid mess and frustration.

Step 6: Put On a Workshop

Introduce your school's commitment to Making with fun mini-Maker fairs or community events. Show off what students have made littleBits, Sphero, Snap Circuits...even Legos. Inform all attendees about the exciting things going on in the Maker movement! You can even hold a virtual fair with students from other schools via Skype, Twitter and other social media.

Step 7: Set Goals

Are you incorporating Maker methods to teach science, math and engineering? Or are you focused on hands-on learning and creativity? Or are you looking for a blend. Whether you are interested in exposing students to tools and technologies, or looking to free expression through DIY and crafting approaches, solidify your educational goals and intent.

Step 8: Assess Your Space

While, ideally, you may want a dedicated Maker space, the reality is that many schools simply don't have the room. Does your school library have an open corner? Would a mobile Maker kit work best for shared spaces? Consider how much room you have for supplies and where you'll store them when not in use. There's no sense in getting a ton of stuff if there's nowhere to put it. Many schools are putting together Maker Space carts that can be put away when not in use.

Step 9: Throw Down Design Challenges

After kids tinker and play, it's time to focus their learning with design challenges. Introducing time limits and a focused theme teaches creative problem solving. Try a robot obstacle course, or a challenge to make video games as opposed to just playing them!

Step 10: Create a Maker Curriculum

Here's where the rubber hits the road. No it's time to tie Maker projects to your curriculum. Try littleBits for design thinking and math concepts such as parabolas; Sphero for physics; and Makey Makey for ELA and music.