

114 TIPS TO CREATE A STEAM MAKERSPACE



GET STARTED

These are the least expensive items that you'll need to get started. Ask for as many of these items to be donated as possible. Purchase the rest as base consumables.

- | | | | |
|---|---|---|--|
| <input type="checkbox"/> Yarn | <input type="checkbox"/> Wire cutters | <input type="checkbox"/> Ink | <input type="checkbox"/> Scotch tape |
| <input type="checkbox"/> Embroidery String | <input type="checkbox"/> Tennis balls | <input type="checkbox"/> Embroidery hoops | <input type="checkbox"/> Felt |
| <input type="checkbox"/> Cardboard | <input type="checkbox"/> Nuts and bolts | <input type="checkbox"/> Old instruments | <input type="checkbox"/> Dental floss |
| <input type="checkbox"/> Fabrics/textile swatches | <input type="checkbox"/> Paint | <input type="checkbox"/> Rubber bands | <input type="checkbox"/> Foam board |
| <input type="checkbox"/> Old telephone wire | <input type="checkbox"/> Model magic | <input type="checkbox"/> Toothpicks | <input type="checkbox"/> Poster board |
| <input type="checkbox"/> Balloons | <input type="checkbox"/> Markers | <input type="checkbox"/> Straws | <input type="checkbox"/> Telephone wire |
| <input type="checkbox"/> Popsicle sticks | <input type="checkbox"/> Wood blocks | <input type="checkbox"/> Magnets | <input type="checkbox"/> Paper: origami, construction, plain |
| <input type="checkbox"/> Pipe cleaners | <input type="checkbox"/> Mod Podge | <input type="checkbox"/> Duct Tape | |



DIG DEEPER

These are items you'll most likely need to purchase and which can take your STEAM lessons to the next level with students. Try crowdfunding/grants for these.

- | | | | |
|---|--|--|---|
| <input type="checkbox"/> Legos | <input type="checkbox"/> Batteries (AAA, AA, CR2032, C, D) | <input type="checkbox"/> Chibitronics | <input type="checkbox"/> HUE Animation Studio |
| <input type="checkbox"/> Snap Circuits | <input type="checkbox"/> Green screen paper | <input type="checkbox"/> Qubits | <input type="checkbox"/> K'Nex |
| <input type="checkbox"/> Hole Punches | <input type="checkbox"/> Zoomy handheld microscope | <input type="checkbox"/> Keva Structures | <input type="checkbox"/> Makey Makeys |
| <input type="checkbox"/> Scissors | <input type="checkbox"/> Microphone/ Microphone stand | <input type="checkbox"/> Spirograph | <input type="checkbox"/> Sphero Ball |
| <input type="checkbox"/> Copper tape with conductive adhesive | | <input type="checkbox"/> 3Doodler | |
| <input type="checkbox"/> LEDs | | <input type="checkbox"/> 3D Printer | |
| | | <input type="checkbox"/> iPads/Tablets | |
| | | <input type="checkbox"/> Sewing machine | |



WEB RESOURCES

These are websites that your students can access which will help them find ideas, create with web tools and share their work online.

GET IDEAS:

- Instructables.com
- CantataLearning.com
- Makerspace.com

CREATING:

- edu.buncee.com
- picmonkey.com
- canva.com
- piktochart.com
- education.minecraft.net

SHARING:

- creatubbles.com
- web.seesaw.me



APPS FOR STEAM

This mix of free and paid apps are a good starting place for working in a STEAM-inspired makerspace.

- | | | |
|--|---|--|
| <input type="checkbox"/> Dolink | <input type="checkbox"/> Drawing Desk | <input type="checkbox"/> Vyclone - Film Together |
| <input type="checkbox"/> Animation Creator | <input type="checkbox"/> EduCreations | <input type="checkbox"/> Amaziograph |
| <input type="checkbox"/> MyStop Action | <input type="checkbox"/> Shot Designer | <input type="checkbox"/> Morphi |
| <input type="checkbox"/> Flipbook | <input type="checkbox"/> Storehouse - Visual Storytelling | <input type="checkbox"/> Cardboard |
| <input type="checkbox"/> StopMotion Recorder | <input type="checkbox"/> Adobe Voice | <input type="checkbox"/> NYTVR |
| <input type="checkbox"/> Garageband | <input type="checkbox"/> Echograph | |
| <input type="checkbox"/> iMovie | | |



FOR YOUR CONSIDERATION

Be sure to think about how you'll store, charge and provide room for students to explore, create and share their work.

CARTS/STORAGE:

- Clear view bins
- Labels
- Cubbies
- Shelving
- Rolling carts
- Checkout system

POWER/CHARGING:

- Charging stations
- Laptop/tablet bins
- Cord wrappers
- Power strips
- Label system

WORKSPACES:

- Collapsible tables
- Long workbenches
- Desk groupings
- Creating area
- Lab tables
- Presentation space



STEAM UNITS OF STUDY

Here are some sample ideas for STEAM-driven units of study that you can use for your new makerspace.

- | | | |
|--|--|--|
| <input type="checkbox"/> Study/create string art with linear equations | <input type="checkbox"/> Explore sound and light waves | <input type="checkbox"/> Energy and space through movement |
| <input type="checkbox"/> Design a musical instrument | <input type="checkbox"/> Microscopy study | <input type="checkbox"/> Models, structures and sculptures |
| <input type="checkbox"/> Create a new set design | <input type="checkbox"/> Art forgery/chemistry | <input type="checkbox"/> Costume design and wearable art |
| <input type="checkbox"/> Animate a story | <input type="checkbox"/> Architecture unit | |
| <input type="checkbox"/> Robotic movement | <input type="checkbox"/> Lego Pixelation Wall | |
| | <input type="checkbox"/> Coded Grid Art | |
| | <input type="checkbox"/> Sound Effect Lab | |

