



# 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.

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

## 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.

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

## 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.

- Dolnk
- Animation Creator
- MyStop Action
- Flipbook
- StopMotion Recorder
- Garageband
- iMovie
- Drawing Desk
- EduCreations
- Shot Designer
- Storehouse - Visual Storytelling
- Adobe Voice
- Echograph
- Vydone - Film Together
- Amaziograph
- Morphi
- Cardboard
- NYTVR

## 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.

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