**STEAM Studio Badge System**

Woodworking

Tools like hammers, saws, screwdrivers, pliers, and clamps are used in woodworking. These can be used in conjunction with wood, nails, screws, glue and other materials to build models and contraptions.

Show what you know-

* Demonstrate knowledge of tool names and purpose
* Model appropriate use by:
	+ - Using a saw to cut in a straight line
		- Using the electric drill with care
		- Using goggles and maintain personal safety



Scratch

* Scratch can be used to create digital stories, games, and animations.

Show what you know-

* Create a “sprite”
* Program the sprite to walk back and forth, turn and talk, or other motions and actions
* Add background and other objects to the scene



X-ACTO knife

The X-ACTO can be used to cut cardboard or other materials.

Show what you know-

* Open and close the knife safely
* Cut out a shape with care
* Change a blade

Animation

* Different tools can be used to animate including Movie Maker, PowToons or other websites.

Show what you know-

* Make a picture move
* Make a flipbook
* Create a scene
* Add sounds
* Use stop-motion animation to create a story



Sewing

Tools for hand sewing and the sewing machine can be used to create something.

Show what you know-

Hand Sewing

* Thread a needle
* Tie a knot
* Sew a button

Sewing Machine

* Thread the bobbin
* Change the thread
* Demonstrate different stitches
* Finish a piece



Hot Glue gun

A hot glue gun is a hand tool used to fuse items together using heated glue.

Show what you know-

* Glue something
* Reload the gun with glue
* Use materials with safety
* Let gun cool and clean up



Soldering

A soldering iron is a hand tool used to melt [solder](http://en.wikipedia.org/wiki/Solder) so that it can flow into the joint between two pieces of metal.

Show what you know-

* Find a safe area to work
* Use goggles
* Wipe at the right time
* Create 3 joints
* Wait to cool
* Clean up