Innovation Center

Optimizing the equipment and spaces in Innovation Center
5/2022-

6/29/2022

Language for Assabet Description ~~and Triggered Email Content~~ to require library card:

DIY Digitizing Family Photos, Slides, and VHS tapes
Show your WPL Certificate of Completion and a valid Worcester or CW/MARS library card at the Newspapers and Magazines desk to work on your project. First come, first served. If this time does not work, feel free to book a time that works for you. For information on how to sign up for a card, visit www.mywpl.org/?q=get-library-card**.**

DIY Sewing for Adults
Show your WPL Certificate of Completion and a valid Worcester or CW/MARS library card at the Welcome Desk to use a Brother Sewing & Quilting Machine in our Innovation Center to work on your own project. First come, first served. For information on how to sign up for a card, visit www.mywpl.org/?q=get-library-card**.**

DIY Vinyl Cutting for Adults
Show your WPL Certificate of Completion and a valid Worcester or CW/MARS library card at the Welcome Desk to use a Cricut Maker® 3 smart cutting machine in our Innovation Center to work on your own project. Patrons must provide their own material. First come, first served. For information on how to sign up for a card, visit www.mywpl.org/?q=get-library-card**.**

Procedure

Patrons who come for DIY vinyl cutting and sewing sessions will be directed to the Welcome Desk. When they arrive, they will show Welcome Desk ref staff their WPL Certificate of Completion and a valid library card. Staff will scan the card in Evergreen to make sure it is valid and hold it at the desk. Staff will log the session on the DIY Signup Sheet on the clipboard in the ___ drawer at the Welcome Desk. (ARE THEY STILL LOGGING IT ON THE GOOGLE SPREADSHEET?)

Staff will open the room for the patron. At the end of the session, the patron will come to the desk to retrieve their library card. Staff will lock the room and hand library card back to patron.

One-one form

Questions

Should we make an note on their library account indicating they are certified to use X equipment in lieu of the certificate?

6/9/2022

Innovation Center User Agreement DRAFT 6/10/2022 JM

- Must have a Worcester or CW/MARS Library card and a WPL Certificate of Completion. AGE REQUIREMENT? 18+, 16+, 13+, require adults under 18?
- Appropriate dress is required - closed toed shoes, hair tied back, no loose clothing.
- Users are responsible for their own safety and looking out for the safety of others and will inform Welcome Desk staff immediately if an injury occurs.
- Users will not tamper with tools and equipment and will inform Welcome Desk staff of faulty equipment.
- Users agree to accept financial responsibility for any misuse or damage to tools and equipment.
- Users must allow enough time for cleanup and leave the room in good condition.
- Users may use tools and equipment they have been certified on but must bring their own supplies and materials for their projects.
- Users are expected to abide by the library's **Patron Behavior Policy** and will be asked to leave the room if they fail to comply with these rules.
- Failure to comply with the Innovation Center User Agreement will result in the loss of room privileges.

6/9/2022

- Wall cabinets have been locked. A set of keys is now at the Teen Desk and the Welcome Desk. The keys are color coded.
- Virtual Reality/Cricut computer is now equipped with a wired keyboard and mouse. Patron login credentials:
    - username: innovation_user
    - password: innovation_user
- Keyboards and mice for Macs and the VR computer have been locked in the bottom right wall cabinet.
- Room calendar is up on the glass window near the whiteboard. Staff can add their monthly programs
- Ronnie created a sewing box for DIY Sewing which contains all the items a patron would need to sew on their own on Tuesday nights.

Step one: making space for the virtual reality and vinyl cutter (Cricut) -pc

- moved the two sewing machines off the counter and
- placed them on the two movable tables

- Mike set up a patron profile on the virtual reality computer for us to use
- Four maker tables were rearranged into two big tables.
- The table cabinets in the middle which are not accessible, are empty now. All stuff was consolidated into the table cabinets that are accessible with a green sticker on each cabinet handle.

Needs mentioned in 6/9/22 meeting (JP):

- **Radio or phone in room**
- **Innovation group creation and calendar for easy communication**
- **Portable sink (Something with a deep sink like this)**
- **Drying rack or shelves for patron projects (Purchased and in use)**
- **Policy for room/equipment and patron safety/responsibility**

Inkscape and Vinyl Printing Service planning
10/26/2021

Learn inkscape with Technocopia

Students send print jobs to JP

- Select vinyl + color (need to be clear about what each type of vinyl is good for):
    - Permanent - for outdoor, automotive decals, mugs, etc..
    - Removable - window signs, etc…
    - HTV - for clothing/fabric, etc…
- Limitations:
    - 12”x12”
    - File type - .svg
- JP evaluates request and communicates with student if there is an issue
- Once printed, JP will notify patron to come in to finish print during set hours to be determined by PC
- Patron will have 1:1 with JP, to complete a combo of the following tasks:
    - Weed print
    - Apply transfer tape
    - Possibly screen print
    - Iron to fabric
-

- 3D printing service launched Friday, October 15, 2021 on slideshow
- Promoted on Facebook, October 27, 2021

3D print submission has been emailed to you by Ping:

1. Print out the 3D Print Submission form
2. Ping or Jen will enter the submission on the **3D Printing Vinyl Cutting Submissions** Excel spreadsheet on the staff share drive **Z:\PERIODICALS\3D Printing Vinyl Cutting Submissions.xlsx**
3. The original email will be in 3D Printing Requests folder in email ref
4. Download the .stl file from the form and open it in Cura
5. Evaluate the object to make sure it is under 4 hours and meets our standards
6. If the patron provided a URL, review it for any printing specifications, i.e. infill, supports, rafts...
7. If the file is too large, or is unfit for printing, email the patron to let them know
8. If it meets our criteria, make any recommended changes, save the file as a .gcode file

Prepare the 3D printer:

1. Turn on the 3D printer
2. Load printer with the patrons color choice (instructions to unload/load filament below)
3. Clean the bed by wiping it with rubbing alcohol
4. Open .gcode file in Octoprint
    a. Open Google Chrome browser and click the Octoprint bookmark in the bookmarks bar
    b. On the left-hand side, click Upload and find the .gcode file you wish to print
    c. Once uploaded, the file will appear in the Files area (the area above the Upload button)
    d. Click the small Print icon (rightmost icon, not the big blue print button!)

5. Your job will begin to print after calibration

Note: If Octoprint is not connected to printer click "Connect" in the State Box on the top left of the page

Print the 3D item:

1. Watch printer for the first few minutes to ensure the item is printing correctly
2. In the notebook by the 3D print computer, create an entry for the print indicating patron, print date, estimated weight and time of print
3. Check on the print occasionally in person or using Octoprint
    a. http://192.168.120.159/, username: octopi, pw: Library2010
4. If the print is failing in any way, stop it as soon as possible! Prints can be stopped via the Octopi if needed.

When print is finished:

1. Remove item from bed and remove any supports
2. Weigh item and calculate the price ($.15/gram)
3. Email patron via email ref:

    Patron,
    Thank you for using our 3D printing service. Your 3d print is ready for pick up at our Newspapers & Magazines desk. The print weighs __grams and costs $_____. Cash payments only. You have 7 days to pick up your print.
    Sincerely,
    WPL Staff
4. Note weight, price, and date patron was notified:
    a. On the **3D Printing Vinyl Cutting Submissions** Excel spreadsheet on the staff share drive **Z:\PERIODICALS\3D Printing Vinyl Cutting Submissions.xlsx**
    b. And, on printed email submission
5. Take the printed email submission and the 3D print to Newspapers & Magazines Desk

Unloading and Loading Filament

Unload filament:

1. Push the wheel to activate the LED menu and turn the wheel right until you get to the change filament option
2. Select Unload filament and Preheat PLA
3. Once the extruder is heated, the extruder will begin to push the filament out (you will hear the whirring of the extruder wheel). At this point, begin to gently pull on the filament until it is ejected
4. Cut the end of the filament at a 45 degree angle and store the filament (make sure the end of the filament is secured either with a clip or in one of the holes on the spool and the storage bag properly closed)
5. Retrieve the filament you wish to load and place it on the feeder

Load filament:

1. Push the wheel to activate the LED menu and turn the wheel right until you get to the change filament option.
2. Select load filament and Preheat PLA

3. While the printer is heating up, feed the filament through the plastic hose so that 3 or 4 inches are sticking out the end (filament should be coming from bottom of spool into feeder)
4. When the filament is ready to load, the machine will ask you to press the wheel to continue. Put the filament in the feeder (the orange bit) and push the wheel
5. Push the filament gently until you feel it feeding into the machine (you may need to wiggle it a little bit). Some filament will purge out the bottom.
6. The LED menu will now have two options: purge more and continue. If the purged filament is not the right color, select purge more, otherwise select continue

Troubleshooting a clog/jam:
Call Katelyn, Erin, or Ben
Check Google and YouTube

3D Printing Service on LibGuide 10/7/2021 pc jm

WHAT IS 3D PRINTING AND WHY DOES THE LIBRARY OFFER THE SERVICE?

3D printing, also known as additive manufacturing, is a method of creating a three-dimensional object, layer by layer, using a computer-created design. The 3D printing service at the Main Library provides the community an opportunity to experience cutting-edge technology without buying any equipment.

HOW DO I PRINT SOMETHING?

Step 1: Find or create a 3D item

- Find and download a .stl file: Thingiverse | Yeggi | MyMiniFactory | YouImagine |
- Design your own 3D items: Tinkercad | ZBrushCoreMini | Fusion 360 | Blender |
- Tutorials: How to find and download .stl files | TinkerCAD for Beginners |

Step 2: Submit your 3D printing job

- Use this 3D Printer Job Submission form to upload your .stl file to be printed.

Step 3: Pick up your item

- You will be notified when the job is complete.
- Prints must be picked up at the Newspapers & Magazines service desk by the individual who submitted them using valid ID or a current WPL library card within 7 days of notification.

Step 4: 3D Printing Service Guidelines

- The Library will not approve print requests that are:
    - illegal under local, state, or federal law
    - unsafe or dangerous
    - inappropriate for a public setting
    - subject to copyright, patent, or trademark protection
- All designs must be submitted in an .stl file format and will be printed in PLA filament.
- The Library cannot guarantee model quality or stability of designs.

- Users must pick up their prints within 7 days of notification.
- The service is available for all ages. A parent or guardian must submit and pick up 3D prints for children under 12 years of age.
- The Library will not save your .stl file once your submission is printed.

Step 5: Cost

- To help you get started with 3D printing technology, the library will print your first file for FREE.
- After the first free print, the cost is 15 cents per gram. The Library will accept cash for 3D prints at the time of pickup.
- Print jobs will be completed during library hours. The Library makes no commitment to being able to produce print submissions within a specific timeframe.

Step 6: 3D printer model and available colors

- The Library has a Lulzbot TAZ Workhorse 3D Printer and PLA filament in the following colors:

Step 7: Limitations

- The Library can only print a design that falls within these parameters:
  - is no larger than 13 cm x 13 cm x 13 cm
  - takes less than 4 hours to print
- A librarian will let you know if your file is beyond the limitations. If you would like to estimate the size and print time of your file yourself, follow instructions here.

Estimate Size of 3D Print Job on LibGuide 10/7/2021 jm

To ensure your print design falls within the Library's parameters, you can estimate the weight and print time of your 3D design through Cura Lulzbot Edition. You can access this program by using one of our public computers at the Main Library.

You may also download the appropriate version of **Cura Lulzbot Edition** to your own computer. Follow the steps on Cura's site to download the program. Open the program once it is installed. The program will prompt you to Add a Printer and select Machine Settings. Add the settings below:

To Add Printer:

- From the LulzBot 3D Printers list, select **TAZ Workhorse**
- From the Tool Head list, select **SE | 0.50 mm | Nickel Plated Copper |**
- Click Add Printer

To select Machine Settings:

- Leave all settings the same

- Click Finish

To add an .stl file to Cura to estimate weight and time of 3D print:

- Select Open File
- Make your selection
- Click Open, the design will open in Cura
- Look at the display in the right hand corner to determine estimated weight and time of print *

***This tool will help you determine the weight and time of your 3D print to ensure it fits our parameters. The Library will make the final determination about the cost of all 3D print submissions.**

https://www.youtube.com/watch?v=q3wo_VBfMPA

via Gfycat

<iframe allowfullscreen="" class="giphy-embed" frameborder="0" height="480" src="https://giphy.com/embed/j3K5Hk9WmCyk7ziG9Z" width="480"></iframe>

via GIPHY

3D printing is a process in which three dimensional objects are generated from a digital design. The creation of a 3D printed object is achieved by laying down successive layers of material until the object is created.

Making Arts and Crafts in Innovation lab Team
RH EO JP RA
7/14/21

From: Veronica Howley <vhowley@mywpl.org>
Sent: Monday, July 12, 2021 5:24 PM
To: Erin O'Neall <eoneall@mywpl.org>; Katherine Rabeuf <krabeuf@mywpl.org>; Jessica Pelletier <jpelletier@mywpl.org>; Amy Klein <aklein@mywpl.org>
Cc: Cynthia Bermudez <cbermudez@mywpl.org>; Pingsheng Chen <pchen@mywpl.org>
Subject: RE: Making Arts and Crafts in Innovation lab

We are excited to be opening the Innovation Center to the public slated in the fall. Ping suggested we meet this week on Thursday at 9:30 in the teen center if that works out for everyone. Please bring your ideas and questions or send them to me beforehand. Lots to consider to get the lab up and running, and brainstorming and sharing ideas will be an exciting way to begin.

Meeting on 7/14/21

- *Hold regular Monthly Innovation lab meetings first one hopefully being mid August to discuss:*
    - *Programs that we have had, pros and cons of the program especially if we plan to repeat the same program with the teens or adults, things that could work better, supplies needed, piggyback programs (say t-shirt printing for teens followed by t-shirt printing for adults and so on), as well as other obstacles we may encounter in regards to programming, scheduling, supplies, etc.*
- *We see the innovation lab working in three ways*
    - *One for open lab programs*

    Adults Wednesday 3-5 DIY

    Sewing am classes

    - *Only for adults and teens who have been "certified" on that specific machine*

    Of the three above ways materials will be provided for free only during open lab and classes this will be re-evaluated at the monthly meeting to see if we need to adjust this as it might become a problem if we have one patron constantly using all the vinyl during every open lab or all the paint, etc.

    - *During individual appointments patrons will be required to bring their own materials or we will charge a set fee for materials used (this price will be discussed during monthly meetings)*
- *We should have a key to the innovation lab in the teen room and at the welcome desk*
- *What is the age requirements for that room? Are children allowed with an adult?*
    - *Our vote 12 and up, age 11 determined by staff, adults only (16 and up) for adult programs due to the expensive equipment and the fact that in the past adult patrons would come in with their children and then not pay attention to them as well as the programs not being designed for children*

· *There is a projector in the room so we could teach the software some programs but the best option would be to do this in the computer lab (3D printer and vinyle cutter, etc)*

· *Waivers for equipment will be kept in binders one for adults one for teens in alphabetical order in the innovation lab locked cabinet*

· *Teen room would like preferred time slot of every day from 3-5 aside from Wednesdays to conduct programs so if adult services can try to plan around those time for programs that would work best*

· *Patrons who cannot make designated time slights will be able to contact specific staff to set up one on one appointments to get certified on certain equipment>maybe add this to the email ref page: Innovation lab one on one requests and appointment requests*

References PS JM-DE KD BI AL AK

The Innovation Center will provide access to resources, tools, and technology in a collaborative space where the Worcester community can explore, design, and create in pursuit of personal and professional growth and enrichment.

Initial adult services and programs will include: (Learn, Design, and Create in Innovation Center)

- Arts & Crafts: DIY crafts, Jewelry Making, screen printing,
- Virtual reality
- 3D Printing

References PS JM-DE KD BI AL AK

The Innovation Center will provide access to resources, tools, and technology in a collaborative space where the Worcester community can explore, design, and create in pursuit of personal and professional growth and enrichment.

Initial adult services and programs will include: (Learn, Design, and Create in Innovation Center)

- Arts & Crafts: DIY crafts, Jewelry Making, screen printing, Introduction to Sewing
- Digital design: Intro to 3D Printing
- Digital Recording Studio Open Lab
- Virtual Reality

Digital Design Classes

- Photoshop Basics
- InDesign Basics
- Photo Editing

Equipment List

3D Printing:

1. **Keychains:** Thank you & WPL, geometric heart,
2. Bowls

Screen printing to tote bags

Reading Quotes:
“Once you learn to read, you will be forever free.”
Frederick Douglass
"The only thing that you absolutely have to know is the location of the library."
Albert Einstein
“A reader lives a thousand lives before he dies . . . The man who never reads lives only one.” - George R.R. Martin
"I have always imagined that Paradise will be a kind of a Library."
Jorge Luis Borges (1899-1986. Argentine writer)
"Nothing is pleasanter than exploring a library."
Walter Savage Landor (1775-1864. English writer and poet)
"When in doubt go to the library."
J.K. Rowling
(b. 1965. British novelist, screenwriter, and producer, best known for writing the Harry Potter fantasy series)

The Digital Studio will provide patrons with the means to digitally organize and preserve family history through the use of our scanner, computer and software, as well as provide patrons or small business owners the opportunity to learn Adobe Design software to market themselves or their companies.

Initial adult services and programs will include:

Creating and Digitizing Family Archives

- Scan Your Family Photos
- Convert VHS or Audio Cassette to Digital

Schedule - Sept/Oct set up machines. Oct/Nov - train staff
Staff - AL & AK to initially set up and train, Periodicals can join later and monitor room once service is established
Questions:

Proposals:

Innovation Center: The WPL Innovation Center provides access to resources, tools, and technology in a collaborative space where the Worcester community can explore, design, and create in pursuit of personal and professional growth and enrichment.

4 lab tables, 16 seats, + equipment and supplies needed

Please use the headings below to submit your proposals

Your Initials
Proposed Program/Service Title
Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one on one)
Program Length
What day and time would be your preference for this program
Target Audience (Include ages)
Program Description:
Equipment/Supplies needed:
Staffing other than you is needed for this project:
Outside presenter/performer/instructor needed:

References: https://arlingtonlibrary.org/adult-creative
https://oedb.org/ilibrarian/a-librarians-guide-to-makerspaces/

JL
Proposed Program/Service Title: Jewelry 101 and Jewelry Open Studio
Program/Service Format(workshop, lecture, class, panel, discussion, open lab, one on one)**:**Workshop
Program Length: One Hour

What day and time would be your preference for this program

Thursday (Once a quarter) 4:00-5:00 training and instruction setting followed by an open studio available only to those who have attended the instruction and training session later in the Quarter same time same place. Preferably, back to back weeks, thursday training one week, friday open lab the next. Or multiple open labs for various patron use:Patrons can use any resources available in the open lab so long as they have an instructor signed training session certificate (for example: Jewelry training session done, patron can come in to any open session, sign in to use the lab, and create whatever they want using our jewelry collection. If things are left a mess or stolen, etc patron will have to get a new signed training certificate to reuse the lab and its materials as well as having to wait for the next session in order to do so.

Other session training certificate ideas: Sewing machine . ..

Target Audience (Include ages): 16 AND UP

Program Description:

Patrons will come learn the skills necessary to make their own jewelry including how to use which tool when, what each material does, how to use each material, and what will work best for their target creation.

Equipment/Supplies needed: Jewelry pliers (assorted), findings, beads, crimps, wire, chains, earring hooks, jumprings, headpins, various clasps, etc.

Staffing other than you is needed for this project: No

Outside presenter/performer/instructor needed: No

AK

Proposed Program/Service Title Introduction to the Sewing Machine

Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one on one) Workshop

Program Length 1 hour

What day and time would be your preference for this program Not during Knitting Circle! 1x a month or quarter

Target Audience (Include ages) 16+

Program Description: Have you ever wanted to sew your own clothing, accessories, or home decor but don't know how to sew or haven't done any sewing in a while? Learn how to use a sewing machine at our Introduction to the Sewing Machine workshop! You will learn how to wind a bobbin, thread the needle and practice stitching on the library's sewing machines. Once you attend this workshop, you will be allowed to use our Machine Sewing Open Studio (see proposal below).

Equipment/Supplies needed:

Sewing machine (preferably at least 2 if not more - perhaps start with 2 portable sewing machines of the same kind (ex. Singer 7258 sewing machine https://www.amazon.com/dp/B003KK807M/?linkCode=xm2&tag=goodhousekeeping_auto-append-20&ascsubtag=[artid|10055.g.27760473[src|[ch|[lt|sale- see https://www.goodhousekeeping.com/home-products/g27760473/best-sewing-machines-for-beginners/

for other options) and then if program seems successful get 1 more fancier one that does fancier stitches), oil for sewing machine https://tinyurl.com/sewingmachineoil , Sewing scissors https://www.amazon.com/dp/B07L6MJQ6S/ref=dp_cerb_2 , Pinking shears https://tinyurl.com/pinkingshears , Tape measure https://tinyurl.com/tapemeasuring , Rotary ruler https://tinyurl.com/rotaryruler , Rotary cutter https://tinyurl.com/rotarycutterfiskar , Self-healing cutting mat (ex. https://tinyurl.com/vordv8g), Seam ripper https://tinyurl.com/sewingseamripper , Needles https://tinyurl.com/handsewingneedle and https://tinyurl.com/sewingmachineneedle (compatible with Singer 7258), Bobbins https://tinyurl.com/sewingbobbin (compatible with Singer 7258) , Iron https://tinyurl.com/s6naz8p, ironing board https://tinyurl.com/mabelhomeadjustableironing , long flat surface for cutting materials; table where patrons' feet can touch the floor (for the sewing machine pedal if applicable) (don't want to use a high stool/counter space)

Staffing other than you is needed for this project: Ronnie and any other staff member who is proficient in sewing machines!

Outside presenter/performer/instructor needed: See above - also my knitters suggest contacting a former home ec teacher as a potential instructor.

Considerations:

Room layout - If the sewing machines are portable, would just need a table per machine (plus 1 chair per person) with enough room to spread out the fabric and sewing materials

Storage space: Need space to store sewing machines when not in use; need compartmentalized storage space to separate materials (for organizing sewing materials and to separate from other materials used in the Innovation Center)

Equipment maintenance and repair ex: http://charltonsewingcenter.com/repairs/

Refilling supplies

Future classes in series: teach different skills (ex. How to read a pattern and make something (ex.: https://attend.ocls.info/event/3267663), making pillow cases, hemming pants/shirts, how to embroider, making quilting blocks, sewing pockets onto pants or dresses (by staff request!))

References:

https://www.ocls.info/its-sew-easy

https://library.cityoflewisville.com/Home/Components/Calendar/Event/30783/1782?curm=8&cury=2019

https://www.dclibrary.org/node/58497

https://www.jaxpubliclibrary.org/jax-makerspace/sewing-station

https://www.ledgertranscript.com/Jaffrey-library-begins-sewing-class-due-to-donations-30436386?fbclid=IwAR1R192pl0Rbe7Hbp0b-ItAPGFdE2fNLEmRoABIgplXHAaT304KiOghgj10

Your Initials AK

Proposed Program/Service Title Machine Sewing Open Studio

Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one on one) Open lab

Program Length 2 hours

What day and time would be your preference for this program Weekly, but not during Knitting Circle!

Target Audience (Include ages) 16+

Program Description:

Work on your own project using the library's sewing machines. First come, first serve, max 30 minutes if there's people waiting.

Attendees must bring their own patterns, fabric, thread and sewing notions.

Prerequisites to use a sewing machine: (as copied from Orlando Public Library: https://attend.ocls.info/event/3144981)

- Sewing: Introduction to the Sewing Machine
  OR
- Participants must be able to wind a bobbin, thread a sewing machine, sew straight seams, read simple patterns and cut fabric with minimal assistance.

Equipment/Supplies needed:

Sewing machine (preferably at least 2 if not more - perhaps start with 2 portable sewing machines of the same kind (ex. Singer 7258 sewing machine https://www.amazon.com/dp/B003KK807M/?linkCode=xm2&tag=goodhousekeeping_auto-append-20&ascsubtag=[artid|10055.g.27760473[src|[ch|[lt|sale- see https://www.goodhousekeeping.com/home-products/g27760473/best-sewing-machines-for-beginners/ for other options) and then if program seems successful get 1 more fancier one that does fancier stitches), oil for sewing machine https://tinyurl.com/sewingmachineoil , Sewing scissors https://tinyurl.com/sewingscissor , Pinking shears https://tinyurl.com/pinkingshears , Tape measure https://tinyurl.com/tapemeasuring , Rotary ruler https://tinyurl.com/rotaryruler , Rotary cutter https://tinyurl.com/rotarycutterfiskar , Self-healing cutting mat (ex. https://tinyurl.com/vordv8q), Seam ripper https://tinyurl.com/sewingseamripper , Needles https://tinyurl.com/handsewingneedle and https://tinyurl.com/sewingmachineneedle , Bobbins https://tinyurl.com/sewingbobbin , Iron https://tinyurl.com/s6naz8p, ironing board https://tinyurl.com/mabelhomeadjustableironing, long flat surface for cutting materials; table where patrons' feet can touch the floor (for the sewing machine pedal if applicable) (don't want to use a high stool/counter space)

Staffing other than you is needed for this project: Ronnie and any other staff member who is proficient in sewing machines or can be trained in troubleshooting

Outside presenter/performer/instructor needed: see above

Considerations:

Room layout: If the sewing machines are portable, would just need a table per machine (plus 1 chair per person) with enough room to spread out the fabric and sewing materials

Storage space: Need space to store sewing machines when not in use; need compartmentalized storage space to separate materials (for organizing sewing materials and to separate from other materials used in the Innovation Center)

Equipment maintenance and repair ex: http://charltonsewingcenter.com/repairs/

Refilling supplies

Staffing of room?

Training (of staff as well as patrons)

MF
Proposed Program/Service Title: "Build Leonardo Da Vinci's Arch Bridge"

Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one one one): workshop
Program Length: 2 hours
What day and time would be your preference for this program: once per quarter, on a Saturday
Target Audience (Include ages): 10 to adult
Program Description: Leonardo da Vinci designed a bridge that supports itself and uses no tools in its construction
Equipment/Supplies needed: wooden dowels and craftsticks
Staffing other than you is needed for this project: None
References:
https://www.core77.com/posts/65043/Leonardo-da-Vincis-Ingenious-Design-for-a-Self-Supporting-Bridge and
https://thekidshouldseethis.com/post/how-to-make-leonardo-da-vincis-self-supporting-arch-bridge

Your Initials: KD
Proposed Program/Service Title: Intro to 3D Printing
Program/Service Format: class
Program Length and Interval: 1 hour to 1.5 hours
What weekday and time would be your preference: not sure
Target audience (Include ages): teens and adults or maybe 16+
Program description: Curious what a 3D printer can do? Learn about the basic steps of selecting, preparing and printing an object and take home a 3D printed trinket! (We can choose a small object we know prints well - at Simmons I used tiny sharks - and have them to hand out at the end for every attendee. This would be a good prerequisite to individual use of the 3D printer if that's something we decide to offer).
Equipment/supplies needed, if any: My recommendation is if we get a 3D printer, we get a LulzBot TAZ Workhorse which is $2950: https://www.lulzbot.com/store/printers/lulzbot-taz-workhorse. It prints PLA, ABS and other filaments, it has good reviews, and as a bonus it's the same brand as at least one of the 3D printers Technocopia has (they'd be a good resource for advanced-level programs and troubleshooting if they're willing). I recommend a designated computer workstation connected to the 3D printer (you can also submit jobs via SD card - make sure some computers in the lab have SD card

readers). Accessories needed: filament (mostly PLA to start, variety of colors) from AmazonBasics is $23.99 for 1kg, which would last for quite some time.
Staffing other than you needed, if any: other interested staff could definitely pick it up
Outside presenter/performer/instructor needed, if any: not necessary but we should really talk to Technocopia about what help they might be willing to offer

Your Initials: KD
Proposed Program/Service Title: Design Your Own Keychain
Program/Service Format: 3D printing class
Program Length and Interval: 1.5 hours
What weekday and time would be your preference: perhaps afternoon during the week to get the potential teen audience
Target audience (Include ages): teens and adults or 16+?
Program description: Learn basic principles of designing for 3D printing using TinkerCAD, and create your own customized keychain! (students would need to choose their filament color and pick up the keychain at least 1 day later, due to the time it takes to print)
Equipment/supplies needed, if any: 3D printer and filament (see above). TinkerCAD is a free web-based program so no extra software is needed, but registration #s would depend on the number of computers available in the Innovation Center
Staffing other than you needed, if any: n/a (see above)
Outside presenter/performer/instructor needed, if any: n/a (see above)

Your Initials: CK
Proposed Program/Service Title: Maker Space Worcester - Drones and Ozobots (50% done)
Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one on one): workshop
Program Length an hour
What day and time would be your preference for this program Saturday, once a month
Target Audience (Include ages) children and teens; above K-12
Program Description: Learning the programming mindset, patrons will fly drones and program Ozobots (mini-robots)
Equipment/Supplies needed:

1) For patron

- Drones
    - Mini-drones ($19.7) - has advanced LED infrared sensor hover tech., patrons can control directions or altitudes by their hands or gestures (11cm*6cm)
    - Replacement drone blades - *should be compatible with drones
    - Hula hoop for making drone stay in the hoop (advanced level)

- Ozobot
    - Evo Classroom Kit (12 bots; $1,200) or
    - Ozobot Bit Maker Starter Pack ($53.99): 1 Ozobot Bit, 4 color-code **markers**, activity set of games and brain teasers, 1 cube challenge kit, 1 custom skin, etcs.
    - Art or butcher paper for drawing the tracks
    - Printed out materials for creating tracks from the Ozobot website

2) For librarian

- Mini-drones

- Evo Educator Entry Kit ($99): 1h teacher training, 1 Evorobot, etcs.

Staffing other than you is needed for this project:
Outside presenter/performer/instructor needed:

- Drone:
- Ozobot: https://portal.ozobot.com/lessons

Digital Studio will provide patrons with the means to digitally organize and preserve family history through the use of our scanner, computer and software as well as provide patrons or small business owners to learn Adobe design software to market themselves or their companies.

4 computers + other equipment and supplies needed

AL
Proposed Program/Service Title: VHS conversion for digital preservation

Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one one one): **Training session, then open lab**
Program Length: **Variable, depending on the length of the VHS tape and the speed of the conversion process**
What day and time would be your preference for this program: TBD

Target Audience (Include ages): **18+**

Program Description: This program would allow patrons to convert VHS tapes into more modern formats. The VHS tapes convert in real time for most if not all of the conversion options, so for a 3 hour VHS tape, the process would take at least 3 hours. This is not feasible for one-on-one staff time. My idea would be that we would have periodic (at least once per month) training sessions where patrons who want to use the conversion suite (all the various converters and scanners) would be required to attend and be shown all of them. Once they have taken the training session, then they could be signed in to use the lab as drop-in, first come first served. The librarian (or other Reference staff) would be available for troubleshooting in case of issues, but the patrons would primarily handle the conversion process themselves. After the conversion was done, library staff would sign them out of the room. Depending on the demand, we may have to eventually transition to scheduled time slots via eventkeeper. We would require that patrons bring a flash drive with enough space to store the converted digital file. If the computer running the conversion software was also capable of burning DVDs, patrons could bring in a blank DVD disc and burn the digital file to DVD once the VHS had finished converting
Equipment/Supplies needed: VHS conversion software kit. I recommend Vidbox: https://www.amazon.com/VIDBOX-VCS2M-Video-Conversion-Suite/dp/B00ND0E7FS VCR (we will probably have to get one used, but several options available on Amazon, or staff may have an old one that they might be willing to donate to the cause), Computer that can run the software (and can also burn DVDs if we also want to let patrons burn the digital file to DVD)

Staffing other than you is needed for this project: I would take the lead on this, but hopefully interested Reference staff members would be trained on the procedure for potential troubleshooting if I am unavailable to help patrons

Outside presenter/performer/instructor needed: N/A

Your initials: AK
Proposed Program/Service Title: Digitizing Your Family Photos
Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one one one)
Introduction session followed by open lab opportunities
Program Length 1 hour
What day and time would be your preference for this program
Target Audience (Include ages) 18+
Program Description: Do you have old family photos sitting in a shoebox at home? Do you have film negatives or slides that you want to digitize? Join us as we demonstrate how you can use our digital conversion equipment to preserve your family photos! Bring 1 of your own slides or negatives to scan today! Once you attend this introduction session, you will be able to use our digital conversion equipment in our lab during (open lab sessions TBD)
Equipment/Supplies needed: Slide/Film Negative to Digital Converter with power adapter, cord to connect to computer, Photo scanner, computer, photo editing software
Staffing other than you is needed for this project:
Outside presenter/performer/instructor needed:
References:
https://library.cityoflewisville.com/gathering-space/digital-media-lab/digitization-media-conversion
https://www.bklynlibrary.org/calendar/preserving-old-family-ulmer-park-meeting-room-20191202

Your Initials: KD
Proposed Program/Service Title: Language Lab
Program/Service Format: open lab (in Digital Studio)
Program Length and Interval: 1-2 hours, once a month?
What weekday and time would be your preference: no clue, would have to see when other things are in the space
Target audience (Include ages): adults - learning English or learning another language
Program description: Set up students on Mango, taking advantage of being in a separate room to let them practice out loud & compare their speech to the recordings. Staff person would be on hand to monitor, set up and troubleshoot any tech issues.
Equipment/supplies needed, if any: 4 headsets (headphones w/ microphones), 1 for each computer workstation
Staffing other than you needed, if any: n/a
Outside presenter/performer/instructor needed, if any: n/a

Your Initials: KD
Proposed Program/Service Title: Photoshop Basics
Program/Service Format: class
Program Length and Interval: 1 hour or 1.5 hours, once per quarter or more based on demand
What weekday and time would be your preference: Saturday afternoon?

Target audience (Include ages): adults
Program description: Take a tour of Adobe's flagship graphic design software.
Equipment/supplies needed, if any: Photoshop installed on the digital studio computers (complete Adobe Creative Suite is $52.99/mo for each computer)
Staffing other than you needed, if any: n/a
Outside presenter/performer/instructor needed, if any: n/a

Your Initials: KD
Proposed Program/Service Title: InDesign Basics
Program/Service Format: class
Program Length and Interval: 1 hour or 1.5 hours, once per quarter
What weekday and time would be your preference: Saturday afternoon?
Target audience (Include ages): adults
Program description: Learn the basic tools to create professional-quality brochures, newsletters, and even magazines and books in Adobe InDesign.
Equipment/supplies needed, if any: InDesign installed on the digital studio computers (complete Adobe Creative Suite is $52.99/mo for each computer)
Staffing other than you needed, if any: n/a
Outside presenter/performer/instructor needed, if any: n/a

Your Initials: MF
Proposed Program/Service Title: Using Python to Make Graphics
Program/Service Format: class/workshop
Program Length and Interval: 2 hours, once per season
What weekday and time would be your preference: Saturday afternoons
Target audience (Include ages): Ages 12+
Program Description: Teach students how to create colorful, basic graphics using the programming language Python, and give them the opportunity to follow along by coding during class.
Note: We might want to set a prerequisite of **Intro to Coding Using Python** - or - some other programming experience.
Equipment/supplies needed, if any: Computers
Staffing other than you needed, if any: n/a
Outside presenter/performer: n/a

Your Initials: DE
Proposed Program/ Service Title: Digital Recording Studio Open Lab
Program/Service Format: Open lab (in studio)
Program Length and Interval: 90 minutes every other week
What weekday and time would be your preference: Evenings or weekends
Target audience (include ages): Ages 12+ or supervised by an adult if younger
Program Description: This open lab would give patrons the opportunity to try their hand at creating a podcast or a space to record an oral history. A staff person would be on hand to get them started with the equipment, but it would be recommended that each patron using the equipment have an SD card (or

we could provide them for purchase). Once the sound file is recorded and saved on the SD card, staff could show patrons how to edit their sound files using the free software program Audacity.
Equipment/ supplies needed, if any: Computers with the free program Audacity loaded onto them. Tascam DR-40X 4-Track Handheld Digital Audio Recorder and USB Audio Interface +32GB + Samson Headphones + Batteries + Accessories Bundle $229.00 each with Free Shipping on Amazon (Suggested quantity: 2), sE Electronics Reflexion Filter PRO Portable Vocal Booth, $199.00 each with Free Shipping on Sweetwater (Suggested quantity: 2), AmazonBasics XLR Male to Female Microphone Cable - 25 Feet, $10.59 on Amazon (Suggested quantity: 2), Yeti Blue USB Microphone, 4-Pattern, $129.99 each on Amazon (suggested quantity: 2), Reading Easels, $14.99 each on Amazon (suggested quantity: 2), Tascam TH-02 Closed Back Studio Headphones, Black, $16.63 each on Amazon (suggested quantity: 2), Headphone splitter (so more than one person can listen to replay / audio editing with headphones), $5.79 each on Amazon (suggested quantity: 2)

Staffing other than you needed, if any: n/a
Outside presenter/ performer: n/a

Your Initials: CK
Proposed Program/Service Title Relax Virtual Reality: Rest & Meditation
Program/Service Format (workshop, lecture, class, panel, discussion, open lab, one on one) open lab
Program Length 15 mins
What day and time would be your preference for this program
Target Audience (Include ages) Age above 18
Program Description:

Equipment/Supplies needed: Relax VR, National Geographic VR, Google Earth VR, Oculus Rift, Oculus touch?
Possible Experiences: travel, puzzle games, meditation/relaxation, educational (VR Anatomy), language learning, museum tours, painting,
Staffing other than you is needed for this project: N/A
Outside presenter/performer/instructor needed: N/A

Examples and Early Feedback from Staff

Innovation Center

The WPL Innovation Center provides access to resources, tools, and technology in a collaborative space where the Worcester community can explore, design, and create in pursuit of personal and professional growth and enrichment.

Equipment

- Mac Pro workstations and
- Production Studio including green screen, tripods, and lighting.
- Audio Recording Booth including a 21.5" iMac computer, USB music keyboard, and microphones.
- Video Editing Booth including a Mac Pro workstation with dual monitors. Photo editing can also be done in this booth.
- Canon Powershot G-12, microphones and lights for video production.

- Canopus Analog to digital converters for digitizing, Vinyl, Audio Cassette, VHS and other formats to digital media. (Please note: We do not have an 8mm projector. We have the conversion equipment, but you'll need to bring a projector.)
- Epson V600 scanner for digitizing photos, slides, and film negatives.
- Headphones.
- PEGBOARD WALL to hold things and keep them in sight for ease of access and use

Cooking - DS

Update: 11/16/19: I do not recommend using the innovation center to hold cooking classes for the following reasons:

1. There is no sink available. All the cooking programs require access to a sink to wash equipment and utensils in between recipe demos.
2. Cross contamination. The risk of cross contamination between food and materials/chemicals used in other classes is too great. https://www.servsafe.com/downloads/demos/fh/fh-sample-chapter https://www.gov.mb.ca/agriculture/food-safety/at-the-food-processor/food-safety-program/pubs/fs_7.pdf
3. The number of participants would be limited to 12-15. Historically, our cooking classes are very popular with an average of 25-35 participants per class. WPL would no longer be able to meet patrons expectations. If we wanted to increase the 12-15 limit, the room would need to be reconfigured and seating added, which may not be feasible.
4. Saxe Room: this is a great multi-use purpose room equipped with a sink, countertop and a refrigerator. Continuing to use this room for cooking classes would enable the library to accommodate large class size. I recommend acquiring some additional equipment that will allow us to expand the types of cooking classes we can offer.

I recommend purchasing various portable equipment that can be fairly easily stored. The following portables can be used on a table top which would allow for better viewing. A full-sized stovetop/oven is alsol a good idea as it would expand the types of cooking demos the library could offer. For example, our healthy baking classes are very well attended and patrons have requested additional classes, specifically hands-on participation classes. The average number of attendees for the cooking classes is 25. With a full-size stove, we could accommodate our patrons' requests for these hands-on classes, so they can experience the final results of their learning and demonstrate their newly acquired skills. Also, cake decorating classes are popular at libraries and can be offered to all ages, a multigenerational class. In addition, having the following additional resources would enable WPL to expand the breadth of our healthy cooking classes and offer cultural cooking classes which would benefit the urban community that the library serves.

1. portable convection oven $449 . For use in our baking classes and appetizer classes, and can be used to keep food samples heated.
https://www.avantcoequipment.com/product/?id=9818

2. portable countertop induction burner $199. For use in our soups and sauces classes and for sautéing.
https://www.walmart.com/ip/Cuisinart-Specialty-Appliances-Double-Induction-Cooktop/114341276

3. microwave oven. $160. This would be good for demonstrating quick, healthy meal prep.
LG NeoChef LMC1275SB
https://www.consumerreports.org/products/countertop-microwave-oven/lg-lmc1275sb-395895/overview/

4. immersion blender 79 - $99. (Devon's suggestion) To demonstrate how to quickly blend soups, stews and sauces.
Breville Control Grip BSB510XL blender
https://www.consumerreports.org/products/immersion-blender/breville-control-grip-bsb510xl-158513/overview/

5. Vitamix blender $250 - $400. This is used for smoothies and soup classes. The presenter typically brings one, but it would be good to have another for patrons to have hands-on experience.
https://www.amazon.com/Vitamix-E310-Explorian-Professional-Grade-Container/dp/B0758JHZM3/ref=sr_1_3?keywords=vitamix&qid=1551044665&s=gateway&sr=8-3

6. air fryer $154. Very popular class and simple to use. Great for quick, simple and healthier options recipes with limited fat
https://www.amazon.com/NuWave-Brio-Quart-Digital-Fryer/dp/B073WXDMVG/ref=sr_1_3?keywords=nuwave+air+fryer&qid=1551044950&s=gateway&sr=8-3

7. intstapot $140. For classes on low budget and quick meals for singles and families.
https://www.amazon.com/Instant-Pot-Plus-Programmable-Sterilizer/dp/B075CWJ3T8/ref=sr_1_1_sspa?crid=35SHMNMRJHR97&keywords=instant+pot&qid=1551045133&s=gateway&sprefix=insta%2Caps%2C142&sr=8-1-spons&psc=1

- Food processor - Cuisinart DFP-14BCNY 14-Cup Food Processor, Brushed Stainless Steel
- Vitamix - Vitamix Professional Series 750 Blender, Professional-Grade, 64 oz. Low-Profile Container, Black
- Electric oven (countertop) - KitchenAid KCO275WH Convection 1800W Digital Countertop Oven, 12", White
- Counter cooktop (2) - Cuisinart CB-30 Cast-Iron Single Burner, Stainless Steel
- Electric oven (free standing) - 6.6 cu. ft. Double Oven Electric Range with Self-Cleaning and Convection Lower Oven in Stainless Steel
- Microwave- Emerson ER105002 1.6 cu. ft. 1000W, Sensor Cooking Touch Control, Countertop Microwave Oven, Black

- Smaller items - gloves, spatulas, measuring cups (wet+dry), pasta strainer, sieve, trivets, oven mitts

Crafting

- Sewing machine (2) - SINGER | Heavy Duty 4423 Sewing Machine with 23 Built-In Stitches -12 Decorative Stitches, 60% Stronger Motor & Automatic Needle Threader, Perfect for Sewing all Types of Fabrics with Ease
- Button maker (2) - Mophorn Button Maker 1 Inch Button Maker Machine 25mm Button Badge Maker Aluminum Frame 500 Parts Circle Cutter DIY(500pcs, 1 Inch) **(children's room owns one of these already)**
- Glue guns (5) - Hot Glue Gun, TopElek Upgraded 15W/25W Dual Temp Mini Glue Gun
- Rockwell Dewalt BW788 Scroll Saw $489.00
- Black and Decker portable Jigsaw $29.42
- Workpro 156 pieces home repair tool set $59.00
- Amston Safety Glass 3 pack $12.96
- Black and Decker BDA91109 combination accessory kit 109 pieces $16.79
- Blacker and Decker Drill and home tool kit $89.00
- Dewalt Palm Sander $ 33.00
- Titan Tools 63125 5 piece hammer set $44.32
- JL
    - Household iron: Walmart Black and Decker $9.97
    - Assorted paint brushes S&S $30.99
    - Glue from S&S $10.49
    - Several packages of 8X10 Packs of canvas panels 12 packs $12.99 on Amazon
    - 2-4 sets of Rolling Pins for clay use $9.99 for two on Amazon
    - Jewelry kits
        - Organizer, beads, and tools $28.99
        - Beads $14.29
        - More Beads $15.99
    - InkJet printer $59.99 (the library only owns laserJet printers)
    - Silhouette Machine $329.29 (paper cutter and sketch designer) Kit
    - Soldering Iron kit $15.88 for jewelry and electronics

Recording creation

1. Learn how to create and edit your own podcast.
2. Learn how to narrate and edit audiobooks.
3. Record oral histories about Worcester then-and-now.

Tascam DR-40 4-Track Handheld Digital Audio Recorder with Deluxe Accessory Bundle and Cleaning Kit
$199.00 each with Free Shipping on Amazon
Suggested quantity: 2

sE Electronics Reflexion Filter PRO Portable Vocal Booth
$199.00 each with Free Shipping on Sweetwater
Suggested quantity: 2
Electro-Voice RE27N/D Large-diaphragm Dynamic Mic
$499.00 each with Free Shipping on Sweetwater
Suggested quantity: 2

Electro-Voice WS-PL2 Windscreen for Electro-Voice RE20, RE27, and RE320
$29.00 each on Sweetwater
Suggested quantity: 2

On-Stage Stands DS7200B Adjustable Height Desktop Stand
$13.95 each with Free Shipping on Sweetwater
Suggested quantity: 2

3d printing/scanning/larger printer
In terms of program ideas/what we can do with it: I think for the most part, given the population we serve, 3d printing/scanning will be a novelty item. People who are really serious about it will invest in a Technocopia membership or have an affiliation with one of the schools. I think it does have potential if we're able to draw in the 20- and 30-somethings crowd and introduce them to the idea and its possibilities. What I used to do at Simmons is have drop-in hours for people to learn about the basics and print a sample item (I had some basic items I knew would print well and fairly quickly). We also had some fun with things like "design your own ornament" around the holidays, although that would crossover and appeal to teens as well. I think we can see ourselves as offering people an intro to what the tech is capable of to give them the ideas to proceed.

· This Ultimaker 3 review - https://www.computerworld.com/article/3163484/3d-printing/review-ultimaker-3-offers-high-quality-3d-print-jobs-s-l-o-w-l-y.html -- doesn't sound like it's a good fit for our situation for me, since it describes it as very slow and fussy. Accuracy is good but I don't think we will have a lot of high-level patrons who need a high-quality or high-resolution print.
· The only difference between the Ultimaker 3 ($3495) and Ultimaker 3 Extended ($4295) - which is what we are planning to get - seems to be the size of the build area. I don't think it's worth the extra $800 for an additional 4 inches of height. Because of how long it takes to print (see above in that review, a 6.5-inch model took 19 hours to print) most prints probably won't be large enough to use that extra area.
· This is a nice breakdown of different printers and reviews: https://www.3dhubs.com/best-3d-printer-guide/ I'd argue we should be looking for something more in either the "workhorse" or the "plug-n-play" category. For comparison, I know

Technocopia has a Lulzbot TAZ 6 (that would probably be my choice if I were selecting one). It's also only $2500.

· In my experience 3d scanners are extremely difficult to set up correctly. When we had ours (which was a MakerBot Digitizer) we barely used it because it was so hard to find the right light settings for it to work well.

large-format printers, here is an example: https://www8.hp.com/us/en/large-format-printers/designjet-printers/t120.html -- the HP DesignJet T120 is priced at about $1200 and would allow us to print up to 24" wide in-house. It'd be great for staff (Linnea & anyone else making signs or posters) and a neat thing to offer patrons too, since I'm sure we would charge less than traditional print shops.

Digital Studio will provide patrons with the means to digitally organize and preserve family history through the use of our scanner, computer and software as well as provide patrons or small business owners to learn Adobe design software to market themselves or their companies.

- Audio-Cassette Deck - Teac W-890RmkII Double Auto-Reverse Dual Cassette Deck
- External Floppy Drive - Sabrent 1.44MB External USB 2X Floppy Disk Drive
- Time-Based Corrector -DataVideo TBC-3000 Time Base Corrector
- VHS Deck (Professional) - Panasonic AG 1980P 4-head VCR
- S-Video cable male to male - S-Video male to male cable
- Scanner - Epson 11000 XL- Photo Scanner
- Wipes - KIMTECH® Kimwipes® (280-Pack)
- DVD duplicator - DUP010-00552 – Reflex 7 CD/DVD with USB 2.0
- Printer - Cannon Pixma iP110
- Headphones - Maxell HP/NC-II Noise Cancellation Headphone
- A-D Converter - Honestech VHS to DVD 7*
- VHS-C Adaptor - Gigaware VHS-C Adapter
- MiniDV Player - Sony DSR-40 DVCAM / DV / MiniDV VTR Player/Recorder
- Drawing Tablet - Wacom Intuos Graphics Drawing Tablet ($69, for Adobe Computer)
- Book Scanner - Fujitsu Book Scanner
- VHS to Digital converter - Elgato Video Capture
- Cassette to Digital Converter - Reshow Cassette Player

Examples of Library Craft-Based Maker Spaces and Inventories
http://eugene.libguides.com/c.php?g=473925&p=3351325#s-lg-box-wrapper-12273380
https://library.pflugervilletx.gov/services/pfab-lab and
https://library.pflugervilletx.gov/services/pfab-lab/equipment

https://arapahoelibraries.org/makerspace-equipment/
https://arlingtonlibrary.org/makerspace

https://www.louisvilleco.gov/government/departments/louisville-library/learning-research/makerspace and https://www.louisvilleco.gov/home/showdocument?id=22909

http://www.spartanburglibraries.org/Using-the-Library/Makerspace
https://www.jocolibrary.org/makerspace/wearables
https://ignite.hepl.lib.in.us/ignite-art-studio-makerspace/kit-library/#equipment - this library groups the supplies for particular types of arts and crafts into kits that may be checked out and used inside the library.
https://www.petoskeylibrary.org/using-the-library/makerspace/

Types of Arts and Crafts for a "Dry" Space

Metalwork
- Embossing and Metal Stamping
- Jewelry Making

Fiber and Fabric Crafts
- Sewing and Quilting
- Hand Needle Crafts
  - Knitting
  - Crocheting
  - Embroidery
  - Cross-Stitch
- Weaving
- Rug Making

Drawing
- Pencil
- Color Pencil
- Markers
- Sharpies
- Cartooning
- Hand lettering/Calligraphy

Paper Crafts
- Origami
- Scrapbooking
- Cardmaking
- Book and Journal Making

Seasonal crafts
- Wreath Making

Miscellaneous Crafts
- Perler Beads
- Button art
- Duct tape crafts
- Button making

Equipment and Tools (some tools duplicated if used for multiple crafts)

Metalwork
- Metal Stamping

Fiber & Fabrics
- Sewing and Quilting
  - Sewing machine
  - Pinking shears
  - Sewing needles
  - Tape measure
  - Rotary ruler

  - Sewing scissorsRotary cutter
  - Self-healing cutting mat
  - Seam ripper
  - Pins
  - Needles
  - Thread
  - Bobbins
  - Iron and ironing board
- Hand Needlecrafts
- Knitting/Crocheting
  - Knitting Needles
  - Crochet Hooks
  - Cable Needle
  - Ball Winder?
  - Ruler
  - Scissors
  - Notions (patrons bring their own: row counter, stitch markers, yarn needle)
- Embroidery
- Cross stitch

Button Maker

Cricut - for sewing, vinyl cutting, felt cutting

Drawing
- Set of pencils (H and B)
- Paper
- Kneaded eraser

- Sharpies
- Set of colored pencils

Jewelry making
- Beads
- Beading wire
- Cord and ribbon
- Beading thread
- Beading mats, beading dishes, bead boards
- Scissors
- Measuring tools
- Glue and adhesive
- Pliers (crimping, flat nose, chain nose, round nose)
- Jeweler's hammer
- Beading needles
- Storage for beads
- Jewelry findings - clasps, crimp beads, end pieces, connectors, jump rings/split rings, head pin/eye pins, earring findings, bar pins/base findings)

Scrapbooking
- Albums and page protectors
- Adhesives
- Paper
- Accessories
- Scissors
- Paper trimmer
- Ink pens

Cardmaking

Book and Journal Making

Calligraphy
- Calligraphy pens
- Paper
- HB pencil
- Eraser
- Plastic ruler

Origami paper

Weaving
- Loom

Rug making

Glue guns

Considerations:
Room layout
Storage space
Equipment maintenance and repair
Refilling supplies
Instructors
Textbook or print-out material?
Training (of staff as well as patrons)
What do we supply vs what do patrons bring?
Classes
Open Lab?