NJLA: New Jersey Library Association
The voice of New Jersey libraries and librarians

REFERENCE SECTION QUARTERLY

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This issue will highlight the different maker projects that were presented at the Library Maker's Toolkit. Find directions, pictures and helpful resources throughout this newsletter to help you get started on maker activities at your library.

Thanks for Making the Library Maker's Toolkit a Great Event!

NJLA Co-sponsors:
NJLA Reference Section, Children's Services Section, YA Section, and Emerging Technology Section

Need additional information on the different programs? Please visit:

http://librarymakerstoolkit.info/

INSIDE THIS ISSUE

**A Message from the
Section President,
Theresa Agostinelli**

When the idea of makerspaces in libraries was introduced to me a couple of years ago, I was very excited. One of my undergraduate degrees in college was Studio Art which gave me the opportunity to spend many happy hours creating jewelry, sculpture, photographs and more. In my free time, I love to cook, craft, and design websites. The whole process of creating is satisfying to me, and I know it is to others as well.

My library offers several maker programs for our community, ranging from no-tech, low-tech, to high-tech. Some of these classes can take a great deal of time to put together since, we are faced with several limitations when we offer programs to our communities. One of those limitations is time. It takes time to develop programs, something that I am sure we are all lacking. We also want our programs to be low-cost, safe, and take a short amount of time to complete. During the Library Maker's Toolkit, classes were offered by instructors that have already worked out these logistics, creating courses that can be replicated in other libraries.

Topics like Arduinos, electronics, and even knitting can seem very intimidating to learn. If you are like me, you are a hands-on learner. Even after someone has explained something to me, it really does not make full sense until I do it myself. During the Library Maker's Toolkit, attendees had the opportunity to do just that. And all classes were taught by library employees from across the State, and Rick Anderson who graciously offered his time to teach us about electronics.

This issue of Reference Section Quarterly will give you a taste of the class offerings at The Library Maker's Toolkit. Thanks to everyone who helped with this event, especially our fabulous instructors. Please visit librarymakerstoolkit.info for additional pictures and handouts from many of the classes.

Plans are already in the works for next year's Library Maker's Toolkit. If you would like to get involved in the planning process, please contact me at Agostinellit@gmail.com.
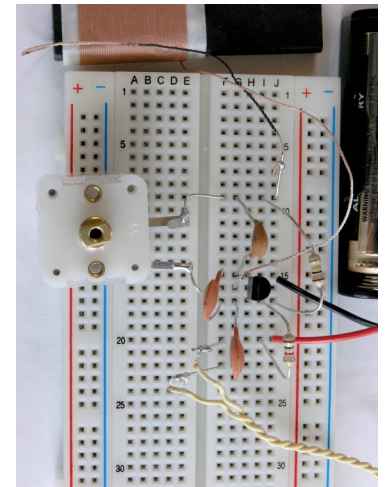
Sincerely,

Theresa

Fun With Simple Electronics

Sometimes the greatest electronics are those which don't require a computer! Rick Anderson from Rutgers University showed participants that you can have fun without the use of a computer through simple electronics. During his presentation he shared information on topics such as power circuits, wire unique and fun electronic components using a breadboard.

For more information, please visit:
New Jersey Maker Space Association **http://makerspace.rutgers.edu/**
Science Buddies **http://tinyurl.com/kuf5jky**

Introduction to WordPress

Wordpress, you've probably heard it before, but did you know it can do so much? Theresa Agostinelli from the Monroe Township Public Library introduced WordPress in a hands-on program where participants created posts and pages, customized themes, menus and more. This was done from a flash drive using a program called Instant WordPress. Instant WordPress allows you to install WordPress.org to your computer or a flash drive. This is beneficial for teaching if you do not have a reliable wireless connection, do not have access to a server, or would prefer that students not work on a "live" site. WordPress has been beneficial to her for creating sites for professional organizations, and for personal sites.

Theresa teaches WordPress to children, teens, and adults. When she assists job seekers, she often recommends that they establish a web presence. WordPress is a great tool for doing that. In her WordPress classes for kids and teens, she tells them that they can create sites to complement their school projects, as well as create portfolio sites that they can use as part of their college applications. And creating websites is just fun to do.

For more information, please visit:
WordPress and Librarians Facebook Group **tinyurl.com/pr55qka**
Lynda.com video tutorials- **contact LibraryLinkNJ for access**
Tech Ex: Websites 101 by Theresa Agostinelli **tinyurl.com/pzk3vwl**
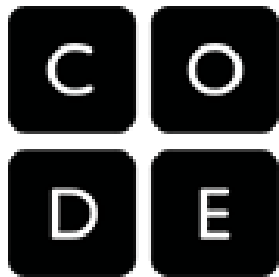Instant WordPress: **instantwp.com**

Tree of Life Pendant

Rosie Henderson from New Brunswick Free Public Library created a beautiful Tree of Life Pendant with materials including jewelry wire, beads, and basic jewelry pliers. Once you have the basics down you can really create beautiful and unique versions of the Tree of Life. For examples, try searching for "tree of life pendant DIY" on Pinterest.com- you will see some truly stunning pendants!

For step-by-step directions, please visit:
http://tinyurl.com/qeqmx2s

"Unplugged" Coding Maze

Emily Witkowski from Maplewood Memorial Library presented a fascinating program that explained coding through written commands using paper and pencil without any computer or wireless access. At her library, teens and kids were invited to participate in this activity, and then paired up to work together. Each pair was asked to develop their own coding language and use that language alone to guide one another through the maze. No verbal assistance was allowed, the partner had only what was written on the paper to go by and interpreted it as written. If an error in the code occurred, their partner had to rewrite that segment of the code, and the participant began the maze again from the beginning.

For more information, please visit:
Information on coding **http://www.code.org**
Directions on creating an "unplugged" maze **http://tinyurl.com/nmr8ygl**

Introduction to Basic Sewing

Jill Stafford from the Matawan Aberdeen Public Library presented an introductory program on sewing. The participants in this class discovered the basics of operating a sewing machine and they left with a project idea they can offer patrons at their libraries. The class began with a tutorial on the different parts of the sewing machine, then students practiced sewing a few simple stitches to get a feel for operating a sewing machine, and finally, they used what they learned to complete their own drawstring bag project.

For more information, please visit:
Messy Jesse Blog **http://tinyurl.com/sewingbasics**
Directions on creating a drawstring bag **http://tinyurl.com/qdo3cau**

Raspberry Pi

Many people have heard of the Raspberry Pi, it's the latest technological toy that lets you hook up the device to a monitor and provides you with a basic computer. Rich Loomis, from Somerset County Library System provided a hands-on presentation where participants were able to put together the pieces to connect with the Raspberry Pi. All you need are a few simple components including: Raspberry Pi, keyboard, mouse, SD, monitor, HDMI cable and a micro USB power cable. Putting them together is as simple as clicking them into the right places.

For more information, please visit:
https://www.raspberrypi.org/

Introduction to Coding with Scratch

Lenora Melillo from West Orange Public Library and Peggy Wong from Piscataway Public Library presented a program on the ever so popular coding site called Scratch, created by students from MIT University. Scratch enables users to program animations, games, and videos through a visual interface that involves dragging together blocks that represent movements and functions on their screens. Learn how to use Scratch, a free easy to use web-based program language software designed to create stories, games and animations.

For more information, please visit:

Scratch Website: **http://scratch.mit.edu/**
Learn Scratch Video Tutorials: **http://learnscratch.org/**
ScratchEd (Search Resources & Curriculum Guides):
    http://scratched.gse.harvard.edu/
Try two fun Scratch Projects from "Made with Code" -
    https://www.madewithcode.com/resources
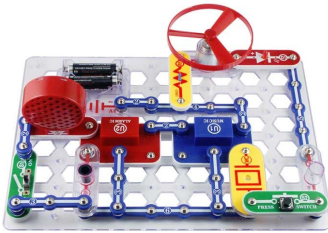
Book Making Workshop

Beverly Rowan, Principal Library Assistant in the Youth Services Department at Sussex County Library System, presented a Book Making Workshop. Bookmaking involves skills in math, art, language, planning, working sequentially and problem-solving with plenty of room for creative expression. Participants created a simple, pocket-page mini-book made from one sheet of scrapbook paper.

For more information, please visit
Directions on Book Making **http://tinyurl.com/bookmakingpdf**
YouTube Playlists on Book Making **http://tinyurl.com/p7dhk6u**
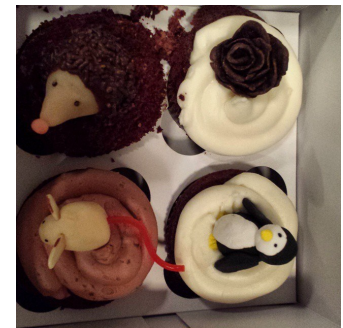
Snap Circuits

When you hear of circuits, you might think of something that is complicated, however, this is not always the case. Julie Binger from Mount Laurel Public Library showed participants that anyone from the age of 8 and up can learn how to use circuits through Snap Circuits. This toy is composed of pieces that snap together and form circuits that allow awesome things to happen – an alarm goes off or a piece flies into the air! In addition to hands-on playing, Julie shared her experience with this maker tool as a programing centerpiece.

For more information, please visit:
http://www.snapcircuits.net/

Chocolate Modeling Clay, Marzipan and Fondant Creations

Tammy Lee from Bernardsville Public Library introduced participants to the world of edible creations using chocolate clay made up of a mixture of chocolate and corn syrup, fondant which is dough made from cooked sugar, and marzipan which is dough made from ground almonds and sugar. Using these three materials, she showed step-by-step how to create edible creations of flowers from chocolate clay, mice from marzipan and penguins from fondant.

For more information, please visit:
Directions and Information **http://tinyurl.com/edibletreats**

Knitting 101

Kathy Gruver from Burlington County Library System presented a program on Knitting 101, a craft that is more than 1,200 years old and is practiced by people of all ages in many different cultures all around the world. We often take knitting for granted, but it is one of the oldest maker skills around. It has a surprisingly large online presence; Ravelry, a social networking site for knitters, crocheters and spinners, currently has more than 5 million members and is the largest specialty social networking site around. Waldorf schools include knitting in the curriculum to teach fine motor skills, concentration, pattern recognition and mathematical skills, and knitting is one of the recommended activities for senior citizens to help delay the onset of dementia. All that, and you end up with a beautiful knitted object as well!

For more information, please visit
Directions and Information **http://tinyurl.com/q8u4rxf**
Knitting Resources **http://tinyurl.com/knittingresources**

"Roll It Up" Stomp Rockets and Bentwood Rings

Wish you could make your own rocket? Dave Franz, Library Director from Hillsdale Public Library presented a program on Stomp Rockets and Bentwood Rings which involved wrapping material around a form and securing it with an adhesive connector. Rolling a material upon itself increases the overall strength of the object. It is similar to creating plywood. Stomp rockets are formed by rolling paper around a PVC form, plugging one end, and adding fins for stability. They are launched using fluid dynamics! Air inside an empty 2 liter bottle rushes through a constricted passage and blasts the rocket over 100 feet in the air. Bentwood rings are created using thin wood veneers and Crazy glue. The grain of the wood is wrapped around to fashion a very strong and durable ring.

For more information, please visit:
Directions for Making Bentwood Rings **http://tinyurl.com/bentwoodring**
Directions for Making Stomp Rockets **http://tinyurl.com/stomprockets**

Healthy Asian Appetizers

Cooking in the library? Well that's exactly what Theresa Agostinelli from Monroe Township Public Library showed participants! There is something about food that brings people together. During the class, participants chopped vegetables, filled and crimped vegetable dumplings, soaked, filled and rolled rice paper wrappers, and had fun. Everyone rolled up their sleeves and were involved in preparing a piece of the meal. Theresa always likes to incorporate fresh fruits and vegetables, and other healthy ingredients in her classes. Most of her classes are either vegetarian or vegan. This works well with the needs of her community, helps to keep costs down, and helps to keep work surfaces sanitary. Cooking classes provide an ideal opportunity for community members to build relationships with library staff and with each other.

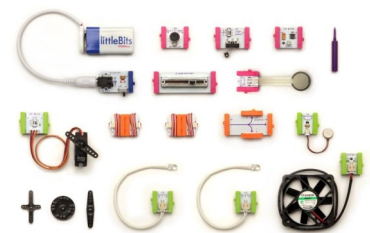For more information, please visit:
Vegetable Dumplings Recipe **http://tinyurl.com/pevs7ve**
Vietnamese Summer Rolls Recipe **http://tinyurl.com/ltgbrjr**

Electronic Toys Petting Zoo

Peggy Wong from Piscataway Public Library shared all the latest maker toys in this hands-on demo. She shared simple electronic toys that teach basic circuitry, inspire creativity, and foster collaborative learning and hands-on problem-solving skills. Students were shown how these fun electronic toys can encourage STEM learning in junior maker programs for grades K-5: littleBits, Snap Circuits, Squishy Circuits, Roominate, and Makey Makey + Scratch.

For more information, please visit:
Electronic Petting Zoo Products: **http://tinyurl.com/oc7h4ug**

Google Hangouts Demo

Doug Baldwin from Piscataway Public Library presented a neat feature from Google called Google Hangouts. Google Hangouts is an integrated service for providing the ability to have 1:1 or group conversations by chat, audio and/or video. The service can be deployed in a variety of settings from informal online gatherings, to business meetings, and more. Doug also spoke about how the service works, the features available in Hangouts, and live interactive demonstrations of how they work. Another feature with Google Hangouts is Hangouts on Air, which allows you to publically record and broadcast Hangouts, make them available on Youtube, and promote them through a generated events page.
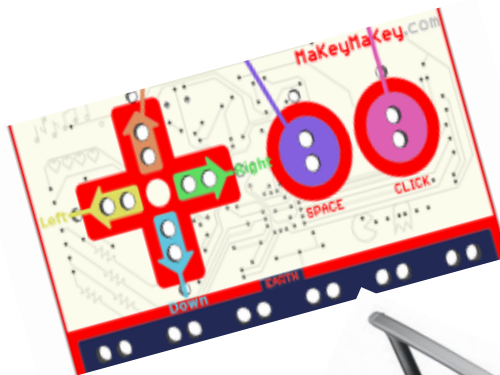
For more information, please visit:
Google Hangouts **http://tinyurl.com/6ol2wdo**

LMx Maker Kit Lending Program
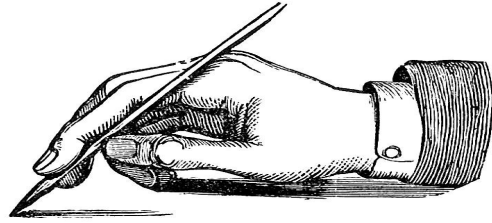
Wish you could use some of the maker products that were featured in the Maker's Toolkit, but don't want to spend all the money on them? Theresa Agostinelli from Monroe Township Public Library and Jill Stafford from Matawan Aberdeen Public Library highlighted what maker tools are available for lending. The LMx Maker Kit Lending Program makes maker tools available to LMx libraries for one month at a time. Kits include two sewing machines, a Silhouette Cameo cutter, 4 makey makeys, a NutriBullet blender, and more.

For more information, please visit:
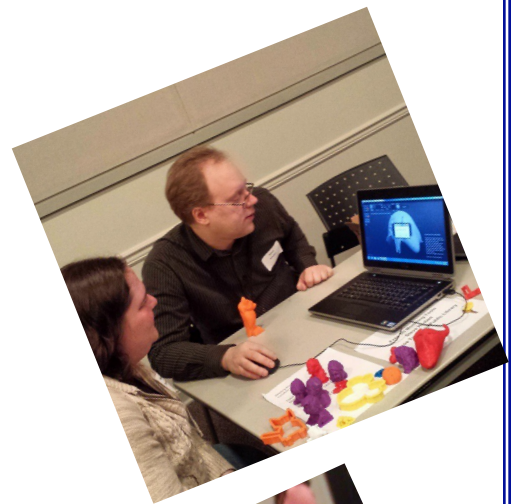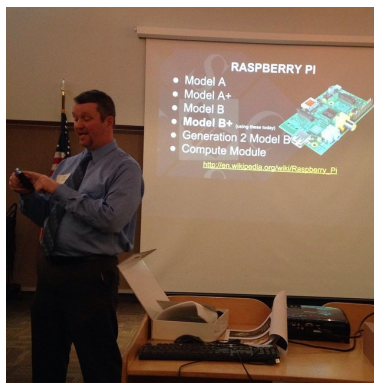**http://makerkits.org/**

A Message from the Editor, Dennis Kuhn

Maker spaces, whether large or big, seem to be growing amongst libraries across the United States. The idea of maker culture allowing everyone from young kids to seniors have hands on experiencing learning and making something is a powerful force of nature. The programs presented can easily be replicated in a library with or without a maker space. Today, patrons are discovering just how awesome and expansive a library can be, and this is just one of the examples how libraries keep evolving. While many of the maker activities include the popular STEM curriculum, (coding and electronics) some are just plain fun (easy Asian appetizers and edible treats).

Today's event was a great way to showcase those activities and meet the librarians and instructors of each program. Although the maker culture may seem to be something new, libraries have always been providing some type of hands on activities through story times, lectures and activities. I look forward to seeing what other maker activities are introduced in the years to come. I want to thank everyone who presented and introduced us to some great activities for our patrons, we are all the superstars of the maker world!

Photos From the Event

NJLA REFERENCE SECTION MISSION STATEMENT

The Section fosters professional development and networking opportunities for reference librarians.

Members plan continuing education programs, including a major workshop in the fall, programs at the annual NJLA Conference, opportunities to interact with colleagues and tours of specialized libraries or collections.

It is the goal of this newsletter to provide a forum for New Jersey reference librarians, from public, academic and school libraries, to read and write about the issues that they face.

Our next Reference Section meeting will be on **Thursday, May 28th** at Brookdale Community College on their main campus in Lincroft. Jill Stafford has arranged a tour of Bankier Library at Brookdale from 10:30-11:00 am.

After the tour, we will be meeting from 11:00 am-12:00 pm to discuss the NJLA Conference, Adult Services Forum, and Reference Section Quarterly.

Directions to the Brookdale Main Campus in Lincroft: http://www.brookdalecc.edu/about/maps-and-directions/#lincroft

Parking is free: Main Academic Complex (MAC, MAN, MAS), Bankier Library – Lot 5

Please email Section President Theresa Agostinelli if you will be attending at agostinellit@gmail.com. We hope to see you there!