

STEAMing into Ringwood Public Library

Science

Technology

Engineering

Arts

Mathematics

What's happening this month at the library...

- ◆ Informational and hands-on exhibits and activities in our new STEAM area. This month: circuits!
- ◆ Activities to try at home, trivia, and references to sources of information on our STEAM webpage: [STEAM at the Library](#)
- ◆ *Hour of Code* on Tues., Dec. 4, 4:30-5:30. Please pre-register your beginner coder by calling the library. If you can't make *Hour of Code* at the library, you can do it at home: go to code.org to get started!
- ◆ Building with *Brainflakes* on Wed., Dec. 5 at 4:00.
- ◆ *Peppermint Science* on Tues., Dec. 18 at 4:00.
- ◆ *3Doodlers* on Mon., Dec. 17 at 4:30. Registration Required!
- ◆ A is for the Arts: Try *Meditative Coloring* to relax during the holidays and to get your creative juices flowing: Fri., Dec. 8 at 3:30.

Science in the Movies:

Chimpanzee

A fun Disney documentary about an orphaned chimpanzee. Great for kids!

[Place it on hold here.](#)

*Save the date for **New Jersey's Maker Day** at Ringwood Library on **March 22 and 23!** Activities for all ages!*

Holiday Math:



1. Can you make a number sentence to count the candles of a Menorah? _____
2. If Kwanzaa starts on Dec. 26 and ends on Jan. 1, how many days are in Kwanzaa? _____
3. The number of days in Kwanzaa are the number of candles in the Kinara. Add the number of candles in the Menorah to the number of candles in the Kinara. _____
4. If $2^3 = 2 \times 2 \times 2$, then what is HO^3 ? _____
5. If we use 3 balls of snow to make a snowman, how many balls of snow do we need to build 4 snowmen? _____



Bring your answers to the library's STEAM exhibit area and place them in the answer box to be placed in a raffle to win a Tin Can Robot kit!

Name: _____

Phone: _____

Recommended Reading for Adults:

The secret life of lobsters : how fishermen and scientists are unraveling the mysteries of our favorite crustacean, by Trevor Corson

An engaging story of how scientists, government officials, and civilians work together in a conservancy effort.



[Place on Hold Here.](#)

There's an app for that...

The [RB Digital](#) app gives you access to magazines and audiobooks. FREE with your library card!

Available for iOS and for Android. Bring your device and library card to the library for help installing the app!

Check out Hoopla's [Learning with STEAM](#) eBook collection.

Earth Science

Winter Solstice



On Friday, December 21, 2018 at 5:23 p.m. EST, we will experience the Winter Solstice. This occurs when the North Pole is at its furthest point from the sun in the year. On that day, we will have the shortest period of daylight. The North Pole will see no sun at all and the South Pole will have sun all day. The good news? After Dec. 21, the amount of daylight will get longer each day!

This month's STEAM display is all about Circuits:

Come in to view our simple circuit on display and play our *Circuit Maze* game.

Join us for open *Snap Circuit* play Thurs., Dec. 27.

Look at the diagram below and compare it to the circuit on display at the library. Can you identify all the parts:

Battery

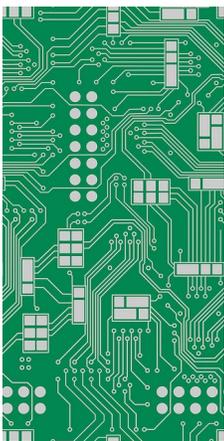
Conductor

(wires)

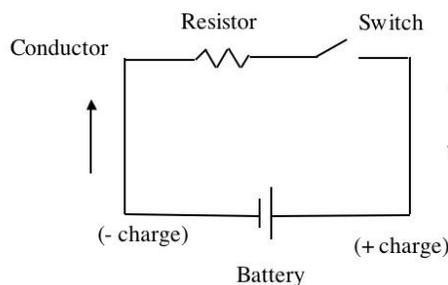
Switch

Resistor

(light)



Basic Electrical Circuit (Diagram)



Fun Websites

<https://www.sciencefriday.com/>
<https://www.seeker.com/>

Life Science

Take a look at the plant below, from a distance and up close.

Can you identify it?

Go to our [STEAM page](#) on our website for more information about this holiday favorite.



Did you know?

Marconi Beach in Cape Code is named after Guglielmo Marconi, who developed wireless communication and radio transmission. In 1903, Marconi Beach was the site of his first successful transatlantic wireless communication between the U.S. and England.

Place a hold on Marconi's Biography [here](#).