

SCIENCE OF CIRCUITS

Wednesdays, January 26-May 4 (no class Feb 16, Mar 16, or Apr 6; 12 weeks)

12:30pm-1:45pm

Ages 6-8

Students are introduced to simple and complex circuits and electrical components through hands-on activities, including building series and parallel circuits, experimenting with power sources, exploring insulators and conductors, as well as learning life skills such as stripping wires. All lab costs are included in registration fee.

Instructor: Tina Oresteen, BSc

Location: Discover Science Center Peachtree City

Course fee: \$220 OR \$20/lab

10% off sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

Batteries and Salty Circuits – Wednesday, January 26

In our introduction to circuits, we investigate and create a power source and investigate conductivity while we learn how the electricity flows to light up a LED.

Creative Circuits – Wednesday, February 2

In this lab, we explore open and closed circuits, introduce switches and use craft supplies, batteries, and LEDs to make a light up charm to keep or share.

Simple Circuits – Wednesday, February 9

We explore the basics of electricity and components of circuits as we create increasingly complex designs with our Snap Circuits®.

LED Flashlights – Wednesday, February 23

This week, students explore different types of insulators and conductors and create a working LED flashlight.

Mini Robots – Wednesday, March 2

Students are challenged to design and build a simple a miniature robot that spins and dances using simple circuits.

Paper Circuits – Wednesday, March 9

We use paper, LEDs and copper tape to design and create a fun Saint Patrick's Day card that light up to share with our friends.

Scribble Bots – Wednesday, March 23

This week, we investigate motors to see electric energy turned into different types of motion and build a functioning robot that scribbles and draws.

Deconstructing Electronics and Circuit Game – Wednesday, March 30

We learn about electrical components, proper tool use, wire stripping and splicing by taking apart electronic toys and creating a working game of our own.

Snap Circuit Challenge – Wednesday, April 13

We build and investigate circuits with our Snap Circuits®, investigate more advanced circuit components and complete challenges with our Snap Circuits.

Powering Circuits – Wednesday, April 20

Students investigate different types of power sources, including different battery types and solar cells, and discover the value of fuses.

Squishy Circuits: Engineering Design Week 1– Wednesday, April 27

Students test conductivity of different types of dough and use them to complete simple circuits and begin the engineering design process to design a creature with light up components.

Squishy Circuit: Engineering Design Week 2– Wednesday, May 4

Today, we use our plans from last week to finish the engineering design process and build our own creature with light up components.