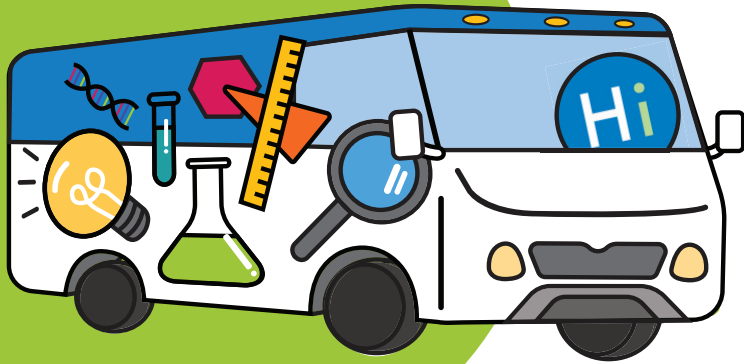


STEAM Machine



CLASS CATALOG

Science
Technology
Engineering
Art
Math

For all ages.
Available upon request.
hclibrary.org/steam

ADDITION AND SUBTRACTION BY NUMBERS

CHILDREN Grades 2, 3
Capacity: 14
Duration: 30 minutes

Hone your addition and subtraction skills while creating a colorful picture.

ANIMAL TRIVIA GAME

CHILDREN Grades 3, 4, 5
Capacity: 14
Duration: 60 minutes

Powerful! Fast! Predator! Make your best guesses to win this game!

ANIMATION

CHILDREN Grades 2, 3, 4, 5
TEENS MS Grades 6, 7, 8
TEENS HS Grades 9, 10, 11, 12
Capacity: 8
Duration: 30 or 60 minutes

Using the iPad Pro and animation apps, learn how to create 2D Animations.

CHARACTER DESIGN

TEENS MS Grades 6, 7, 8
TEENS HS Grades 9, 10, 11, 12

Character designers work in video games, movies, TV, animation, and even comic books and graphic novels! Design and develop characters by creating "model sheets," which consist of costumes, facial expressions, poses, and a character turnaround.

CODE & GO ROBOT MOUSE

CHILDREN Grades 2, 3, 4, 5
Capacity: 14
Duration: 60 minutes

Explore the science of coding and programming with Colby, the programmable mouse.

CODE BREAKERS

CHILDREN Grades 2, 3, 4, 5
Capacity: 14
Duration: 60 minutes

Have you ever wanted to solve a mystery? Use your detective skills to discover how to read and break different codes, ciphers and other puzzles to help crack the case!



HOWARD COUNTY
LIBRARY SYSTEM
Public Education for All

DIGITAL ILLUSTRATION

CHILDREN Grades 2, 3, 4, 5
TEENS MS Grades 6, 7, 8
TEENS HS Grades 9, 10, 11, 12

Capacity: 8

Duration: 30 or 60 minutes

Learn how to create illustrations using Sketchbook and Procreate. Use the various tools to design, draw, and color dynamic illustrations.

MATHEMAGICIANS: GEOMETRY

CHILDREN Grades 2, 3, 4, 5
TEENS MS Grades 6, 7, 8
TEENS HS Grades 9, 10, 11, 12

Capacity: 14

Duration: 30 minutes

Explore the magic of math with related stories, activities, and games while learning mathematical concepts. Identify 3D shapes and construct 3D shapes with various materials.

MATHEMAGICIANS: TALLIES, DATA, AND GRAPHS

CHILDREN Grades 2, 3, 4, 5
TEENS MS Grades 6, 7, 8
TEENS HS Grades 9, 10, 11, 12

Capacity: 14

Duration: 30 minutes

Explore the magic of math with related stories, activities, and games while learning some mathematical concepts. Students use tallies in the retelling of a story. Also, students classify, group, and represent objects/data on a bar graph.

MULTIPLICATION AND DIVISION BY NUMBER

CHILDREN Grades 2, 3, 4, 5

Capacity: 14

Duration: 30 minutes

Hone your multiplication and division skills while creating a colorful picture.

PROCREATE

TEENS MS Grades 6, 7, 8
TEENS HS Grades 9, 10, 11, 12

Capacity: 8

Duration: 30 or 60 minutes

Have you ever looked at a digital illustration and wondered "How did they do that?" Learn tips, tricks, and the steps to create illustration in Procreate.

RULERS AND MEASUREMENTS: CATAPULT (OUTDOOR)

CHILDREN Grades 2, 3, 4, 5

Capacity: 14

Duration: 30 minutes

Learn to measure distance in feet and inches while building simple catapults using popsicle sticks, spoons, and rubber bands, then launching pompoms. Practice good engineering methods by testing, making modifications to their catapult, and retesting to see if they can increase the distance.

For Grade 2: a modified version can be done using race cars.

RULERS AND MEASUREMENTS: PENTAMINOS (INDOOR)

CHILDREN Grades 2, 3, 4, 5

Capacity: 14

Duration: 30 minutes

Grades 3-5 explore the concepts of area and perimeter with a challenge to create a shape with two pentaminos with the smallest perimeter.

Grade 2 focuses on measuring the height and width of shapes and manipulating shapes to fit them into a rectangle.

RULERS AND MEASUREMENTS: PENTAMINOS & CATAPULT (INDOOR/OUTDOOR)

CHILDREN Grades 2, 3, 4, 5

Capacity: 14

Duration: 60 minutes

Combine the previous two listings into one hour-long session.

SNAP CIRCUITS

CHILDREN Grades 2, 3, 4, 5

Capacity: 14

Duration: 60 minutes

Explore the science of electricity and build circuits to complete fun projects.

STEAM JEOPARDY

CHILDREN Grades 2, 3, 4

Capacity: 14

Duration: 30 minutes

Flex your STEAM skills through a rousing game of Jr. STEAM Jeopardy.

TANGRAM PUZZLE FUN

CHILDREN Grades 3, 4, 5

Capacity: 14

Duration: 60 minutes

Learn about tangrams and have fun working together to make a variety of shapes.

TIE DYE LITE

TEENS MS Grades 6, 7, 8

Capacity: 14

Duration: 60 minutes

Tie dye a shirt using sharpies and rubbing alcohol. When art meets science, you get creative awesomeness. All materials provided, please dress for mess.