# Wicked Cool for Kids

2022 - 2023 AFTER SCHOOL

### Fall 1 & Fall 2

Fall session I begins on September 19th Fall session 2 begins on November 7th

- Enchanted Science
- Motion Commotion
- LEGO Engineering JR.
- LEGO Engineering JR..

Imagineers

- LEGO BricQ Motion I
- LEGO BricQ Motion 2

### **Winter & Spring**

Winter session begins on January 23rd Spring session begins on March 27th

- Superhero Science
- Engineering & Electricity
- LEGO JR. Builders
- LEGO JR. Builders STEM
- Intro to LEGO WeDo 2.0
- LEGO WeDo 2.0 Masters



### **Logistics & Pricing**

For age/grade information for each topic please see descriptions on the following pages.

Programs run for 6 weeks at the price of \$138 per child. The minimum to run a program is 8 kids, and the maximum is 14. The minimum must be met 2 weeks prior to start date of the program.

### Fall 1 & 2 Programs SCIENCE

#### **Enchanted Science**

#### Ages 6+ / Grade I+

Are you under the spell of Encanto? Take a look at this enchanted family through the eyes of science. Experiment with senses (can you hear a pin drop?) and examine creatures who seem like they can shape shift! Study the magical way plants use energy from the sun to grow. We'll look at super strength and the power of the weather but we won't talk about Bruno.





#### **Motion Commotion**

#### Ages 6+ / Grade I+

Investigate physics and learn how things move! We'll use Newton's laws to create balloon-rocket cars and a balance toy. Design a zany zip line to take an alien on a thrilling ride, and create optical illusions with spinning tops. Engineer a path (with math) to move a marble down a run. Construct a craft stick catapult to launch koosh balls in the air.

## Fall 1 & 2 Programs LEGO

#### **LEGO BricQ Motion 1**

#### Ages 7+ / Grades 2-5th

LEGO BricQ Motion I is an exploration of forces and motion through investigations. We will determine whether design solutions work as intended by testing and then engineering a change in the speed or direction of an object with a push or a pull. Create an obstacle course for a dog and compete in the LEGO Olympics in a relay race, bobsled competition and hockey game.



#### **LEGO Engineering JR**

#### Ages 5-7 / Grade K-I

LEGO Engineering Junior is a 6-week program designed specially for kids in grades K-I.The activities promote teamwork and critical thinking skills as kids investigate basic engineering concepts using DUPLOs. Perfect for the young builder with tiny hands to build a seesaw, vehicle, and spinning top and other fun working mechanisms.

#### **LEGO BricQ Motion 2**

#### Ages 7+ / Grades 2-5th

Continue the brick building action as we connect to a scientific question or an engineering problem, establish a line of inquiry, and consider possible solutions. From here, create solutions for LEGO minifigures to join a dance party, walk a tightrope, become a weightlifter and race a car. Fun collaborative building with a STEAM focus!

#### LEGO Engineering JR Imagineers

#### Ages 5-7 / Grade K-I

A Wicked Cool For Kids exclusive! Using LEGO Duplos, we will listen to stories based on popular fairy tales. Using the engineering design process, we will then create solutions to help solve their hero's problems using simple machines. Help LEGO Sam and Sara create Rapunzel's tower and a pulley system to lift her lunch! Prince Charming's buggy is busted - can Sam and Sara build a Charming Car to carry the Prince's blocks and save the day? This program will emphasize creativity, cooperation, engineering, math and literacy skills.

# Winter & Spring Programs SCIENCE

#### **Superhero Science**

#### Ages 6+ / Grade I+

What makes a superhero super? Physics! Conduct gravity experiments to learn what it would take for Superman to leap over tall buildings in a single bound. Create optical illusions to understand how Wonder Woman's jet can disappear. Investigate how Spiderman (and real spiders) can walk up walls. Examine Batman's super gadgets and morph into the world of superheroes using the science that could make superheroes a reality.



#### **Engineering & Electricity**

#### Ages 6+ / Grade I+

Wicked Cool Engineers will learn about the engineering and design process to build a sail car that rides the wind. Design a system to protect a passenger from flying out of a car when it crashes and take the Wicked Cool survivor engineering challenge. Build basic circuits and experiment with insulators and conductors as we shift our focus to electricity.

Make a holiday light circuit and experiment with LED mini lights.

# Winter & Spring Programs LEGO

#### Intro to LEGO WeDo 2.0

#### Ages 7+ / Grades 2–5th

Learn to program free roaming LEGO robots and "make science come to life" as we see science ideas grow from design to action. Get in gear with LEGO's NEW updated IPad based software to build and program, Milo the Science Rover and other fun untethered robots. Apply robots to solve real world problems by creating an earthquake – shake table to test house designs, and a bot to sort and recycle items.

#### **LEGO WeDo 2.0 Masters**

#### Ages 7+ / Grades 2-5th

Design your own specialized bots that use sensors to explore an imaginary planet or create a safe wildlife crossing on earth. Tackle open ended programming and building projects to explore space and build a canal to prevent flooding, and to clean the oceans.



#### **LEGO JR Builders**

#### Ages 5-7 / Grade K-I

This introductory K-I LEGO set allows learning through creativity and constructionism using standard sized LEGO bricks, plates, and minifigures. Activities focus on cross-curricular learning through design, building, and classification. Earn your builder's license to cConstruct a bridge, build a wheelchair, and create a machine that you invent. Use language skills to set a scene and build with sounds.

#### **LEGO JR Builders STEM**

#### Ages 5-7 / Grade K-I

This program continues with LEGO Learn to Learn curriculum and focuses on STEM based activities, critical thinking, and problem solving. Make your own math game, build symmetrical designs, and learn about simple machines by building a lever. Design structures, animals, and communities in collaborative and educational challenges.