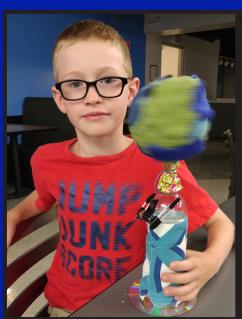
The Center for Gifted ~ Midwest Torrance Center for Creativity

# 2019 Summer Wonders in Cary







## Session I: June 17-21

Course offerings for students entering grades K-8

**Aquatic Biology (3-8)** 

Art that Moves and Shakes (K-3)

Geometry, Art, and Architecture (3-8)

**Lego Mindstorms Robotics (3-8)** 

**Lego Mindstorms Robotics for Girls Only (3-8)** 

Lego WeDo Robotics (K-4)

Make with Makey Makey! (3-8)

Math Around the World (K-4)

**Optical Illusions and Other Ways to** 

Trick Your Brain (2-8)

Science or Magic? (K-5)

**Sweet Science: Chemistry of Candy (3-8)** 

Tales Around the World (K-4)

Writing and Art (3-8)

For students entering PK-K

Science Puzzlers
Tour the USA!

## Session II: June 24-28

Course offerings for students entering grades K-8

Animals in Art (K-5)

Big Bang, Shooting Stars, Moon Rings (K-5)

**Breaking Law of Physics (3-8)** 

Coding with Scratch (3-8)

Coding with Scratch without Boys (3-8)

Create Lego Movies (1-3)

**Create Stop-Motion Movies (4-8)** 

**Crime and Puzzlement (4-8)** 

**Digital Photography (3-8)** 

Games Mathematicians Play (3-8)

Lego Innovation Lab (K-5)

Lego Innovation Lab for Girls Only (K-5)

Mathemagicians (K-2)

**Short Stories (3-8)** 

Sleuthhounds of Science (K-2)

For students entering PK-K

Ice Age Explorers
Soaking up Science

Unique summer challenges for advanced learners entering grades PK-8!

# Course Descriptions, Grade Levels, & Lab Fees:

#### For students entering grades K-8

All courses below are offered both mornings and afternoons. Students enjoy two 80-minute classes each half day. Each Session, they select their favorite courses from among the offerings above. Note that for courses spanning several grade levels, students are placed in classes with their age peers.

Animals in Art: Create masterpieces involving your favorite animals and creatures from your favorite stories or from your own imagination. Use both traditional and unique media to bring your designs to life. (*K-5*)

Aquatic Biology: Create aquatic ecosystems. Explore tide pools, ponds, and coral reefs. Investigate ocean life, from weird and wonderful creatures that lurk in its depths, to playful sea otters that frolic on its surface. (3-8)

**Art that Moves and Shakes:** Discover the exciting world of kinetic art. Design, create, sculpt, and construct works of art evolving from 2D and 3D use of materials. (K-3)

#### Big Bang, Shooting Stars, Moon Rings:

Explore the universe and investigate celestial phenomena. Organize a space trip, or even invent a solar system! (*K-5*)

Breaking Laws of Physics: What just happened? How? Why? Investigate phenomena that venture beyond so-called physical limits. Conduct experiments with unexpected results that defy your understanding of the world. (3-8)

Coding with Scratch: Learn the basics of coding with Scratch, a free and easy-to-use coding language developed at MIT. Assemble lines of code and work towards creating your own project. A free Scratch account is required; we will register accounts on the first day. Visit scratch.mit.edu for more information. (3-8)

Coding with Scratch without Boys: Exactly the same as Coding with Scratch, but no boys allowed. (3-8)

Create Lego Movies: Using a digital camera, movie software, and Legos, create your own movies. Experiment with special effects, sound, and titles. Share your movies with family and friends! (1-3; \$15 lab fee)

Create Stop-Motion Movies: Discover all that goes into making a stop-motion movie. Begin with storyboarding; create characters using figures, models, or even humans for comedic effect; desig backgrounds and props. Using a digital camera and movie software, turn photographs into your own unique movie, complete with sound and special effects! (4-8; \$15 lab fee)

**Crime and Puzzlement:** Unravel mysteries! Employ your powers of deduction to gather evidence and clues. Will you convince your peers of your conclusions, or will the perplexities remain forever unsolved? (4-8)

**Digital Photography:** Want to try your hand at being Insta-famous? Try out our tips and tricks to the art of photography. Experiment with camera angles and macro lenses. Manipulate images to create various artistic effects. (3-8; \$15 lab fee)

**Games Mathematicians Play:** Explore intriguing math games and discover winning strategies. Try your hand at NIM and Sprouts, and create your own variations. (3-8)

Geometry, Art, and Architecture: Explore 2D and 3D design using a variety of materials. Consider recent architectural achievements in Chicago. Study the work of such innovators as architect Frank Lloyd Wright and artist M. C. Escher. Develop an understanding of geometric principles underlying architectural structure and artistic design as you create your own 2D and 3D designs and structures. (3-8)

**Lego Innovation Lab:** Have fun with an abundant supply of Lego pieces of all shapes and sizes! Engage in a unique hands-on, minds-on environment as you work in groups to complete various Lego building challenges. (*K*-5)

**Lego Innovation Lab for Girls Only:** Same as Lego Innovation Lab, but no boys allowed. (K-5)

**Lego Mindstorms Robotics:** Tackle engineering challenges. Construct robots from motors, wheels, gears, and a variety of different sensors. Program them to complete tasks of increasing complexity. (3-8, \$15 lab fee)

**Lego Mindstorms Robotics for Girls Only:** Same as Lego Mindstorms Robotics, but no boys allowed. (3-8; \$15 lab fee)

**Lego WeDo Robotics:** Select your favorite robot, such as alligator, goalie, or airplane. Follow its building plans to bring it into shape using Legos, motors, gears and sensors. Connect to a laptop to program your robots' actions and sounds. (K-4, \$15 lab fee)

Make with Makey Makey! Use cardboard, wire and other household materials to make game controllers, instruments and other fun projects using Scratch and Makey Makey Boards. A free Scratch account is required; we will register accounts on the first day. Visit scratch.mit.edu and makeymakey.com for more information. (3-8; \$15 lab fee)

**Math Around the World:** Embark on a mathematical tour around the globe. Count with Mayan numerals and Egyptian hieroglyphs. Explore African networks and sand drawings. Ponder the math of an Indian folktale. (*K-4*)

**Mathemagicians:** Discover secret sequences and hidden patterns, play math games, and investigate intriguing math puzzles. Create your own number tricks to perplex your peers. (*K-2*)

Optical Illusions and Other Ways to Trick Your Brain: Could you possibly not notice a gorilla standing right in front of you? Can something be both hot and cold at the same time? Learn how to fool your brain. Create your own illusions to fool your friends. (2-8)

**Science or Magic?** Explore tricky science as you experiment with secret potions, disappearing acts, and objects that defy the laws of gravity. Can you always believe what you see? (*K*-5)

**Short Stories:** Everyone loves stories! What are your favorites? Explore a wide range of genres, such as adventure, fantasy, science fiction, biographical fiction, and fan fiction. Inspired by your fresh understanding and discovery, create short stories of your own . (3-8)

**Sleuthhounds of Science:** Discover scientific secrets in a hands-on lab. Can spaghetti fly? How many pounds can you lift with a sheet of paper? Probe answers to these and other vitally scientific questions. (*K-2*)

Sweet Science: Chemistry of Candy. What do chromatography, density, crystals, and pH have in common? They are all scientific principles that can be studied using candy. Explore these ideas and others as you investigate candy in different ways. (3-8)

**Tales Around the World:** Ponder why stories change when told in different cultures. How is the story of *The Gingerbread Boy* told in China? Or *Cinderella* in Africa? How about in Mexico? Explore folktales, fairy tales, and storytelling around the world. (*K-4*)

Writing and Art: Express your ideas through your favorite genres, such as short stories, free verse, imagery, rhymes, haiku . . . you choose! Then discover how to enhance and enrich your writing with one-of-a-kind art. (3-8)



#### For students entering grades PK-K:

Students enjoy a 160-minute interdisciplinary classroom experience each half day.

Tour the USA! Travel the United States, from its mountain ranges and plains to its Great Lakes, sea coasts, deserts, and swamps. Discover America's people, cultures, and history. Explore the states though creative, interdisciplinary activities involving math, science, literature, art, and drama.

Ice Age Explorers: Have you ever wondered how people lived during the Ice Age? Investigate the lives of woolly mammoths, bison, and mastodons. Make your own arrowheads and create beautiful cave paintings. A perfect way to cool off this summer!

Science Puzzlers: Challenge laws of physics and chemistry. Defy gravity to make a ball roll uphill, melt stuff in cold air, and explore other amazing scientific phenomena.

Soaking Up Science: Swish, squish, and splash as you experiment with everyday items, scientific ideas, and perplexities to understand better the world around you.











#### Location

**Briargate Elementary School** 100 Wulff Street. Cary

#### **Hours**

Full Day: 9:00-3:00 Morning: 9:00-11:40 Afternoon: 12:20-3:00

Extended Care: 7:30-9:00, 3:00-6:00

#### **Tuition**

Processing fee: \$4.20 Per Session:

A.M. Extended Care: \$15 per day P.M. Extended Care: \$10 per hour Full Day: \$440 Lab fees: As indicated in course Half Day: \$220

descriptions

See "Details" link on our website for more information on all programs, including program structure, application, placement, eligibility, refunds, etc.

# Apply online at www.centerforgifted.org



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