Learning Lab Winter 2020

Learning Lab classes are hands-on, high interest enrichment classes for students age 3 – 8th grade. Classes are held on six Saturday mornings twice yearly in the fall and in the winter.

Classes challenge students academically and creatively. Students will make new friends while exploring topics in-depth and developing new skills. Class sizes are limited to ensure optimal student/teacher interaction.

Excellent teachers are chosen for expertise in their area and their skill working with bright students. **Classes are open to all.**

Learning Lab Dates:
February 8, 15, 22, 29, March 7, 14

Learning Lab Location:
Wydown Middle School (6500 Wydown Blvd., Clayton)

Learning Lab Tuition & Payment:
$100/six-week class, payable online or by check

For More Information:
Contact the GRC office at (314) 962-5920 or info@giftedresourcecouncil.org

Class Schedule

SESSION 1: 9:30 - 11:00

Ages 3 - 4	Doings in the Desert
Ages 4 - 5	Animals: Biology, Ecology & Habitats
~~K - 1st~~	~~Geology Rocks Our World!~~ **FULL!!**
1st - 2nd	Art Challenge: Make It Like a Master
2nd - 3rd	Robotics Using LEGO Mindstorms EV3 Kits
2nd - 3rd	Even More LEGO-Powered STEAM Fun
3rd - 4th	Fossils & Paleontology
3rd - 5th	Harry Potter: Good & Evil in the 1st Four Books
3rd - 5th	Math Excursions: Beyond the Norm
4th - 5th	Engineering Solutions to Construction Challenges
5th - 6th	Molecular Exploration of the Senses
5th - 8th	Make Your (Chess) Move!
~~5th - 8th~~	~~The Stock Market Game: Investing in Fun!~~ **FULL!!**

SESSION 2: 11:10 - 12:40

Ages 3 - 5	STEAMy Activities Beat Winter Chills
Ages 4 - 5	Doings in the Desert
K - 1st	Animals: Biology, Ecology & Habitats
1st - 2nd	Geology Rocks Our World!
1st - 4th	Make Your (Chess) Move!
2nd - 3rd	Art Challenge: Make It Like a Master
2nd - 4th	Scratch Coding with Music & Sound
3rd - 4th	Molecular Exploration of the Senses
3rd - 5th	Even More LEGO-Powered STEAM Fun
4th - 6th	Advanced Robotics Using EV3 Mindstorm Kits
5th - 6th	Fossils & Paleontology
5th - 8th	Greek Mythology & the Answers to Life's Mysteries
6th - 8th	Math Excursions: Beyond the Norm
6th - 8th	Engineering Solutions to Construction Challenges

Gifted Resource Council is a not-for-profit education agency serving the greater St. Louis Metropolitan area. Its purpose is to bring together the resources of the community, the schools and parents to help bright and talented children achieve their potential.

Class Descriptions – Winter 2020

*** indicates a new class**

Advanced Robotics Using LEGO Mindstorms EV3 Kits

Session 2: Grades 4–6

Build and program working robots which respond to commands and to their environments, including color sensors. With LEGO MINDSTORMS EV3 robotics kits, you can even design your own robot from scratch! Program your creation on laptops using multiple sensors, motors, and intelligent units. Make your robot 'see,' 'hear,' avoid obstacles, speak, and otherwise interact with its environment. Work with a team and apply the engineering process to test solutions based on real-life robotics technology. New challenges for 'repeat programmers.'
Instructor: Lisa Hummel

Animals: Biology, Ecology & Habitats

Session 1: Ages 4–5 | Session 2: Grades K–1

Uncover scientific facts about animals around the world! What special qualities make it possible for penguins to live in Antarctica? How is the skin of a snake different from the skin of an elephant? What color are zebras when they are born and what are baby zebras called? Experiment with ways to keep a cold-blooded animal warm and test your hypothesis using thermometers. Create habitats for favorite animals. Design your own book of animal information! Biology, ecology, art, experiments & more!
Instructor: Beth Crites

*Art Challenge: Make It Like a Master

Session 1: Grades 1–2 | Session 2: Grades 2–3

Planning, design, creativity, technique, materials: Keys to artistic expression. How did the 'greats' do it? Follow the lead of 20th century artists. How do you consider structure and space in an architectural project that conveys what you think is important in life, like Frank Lloyd Wright? Create a textile house collage in the style of painter, sculptor, writer and performance artist Faith Ringgold. Dabble in mixed media 'painting' as you follow the work of Georgia O'Keefe. How many art styles and artistic periods did Pablo Picasso influence? Using various materials, "recycle" facial portraits or masks in his style. Find your own style and develop your technique through this hands-on art challenge!
Instructor: Lisa Bader

Doings in the Desert

Session 1: Ages 3–4 | Session 2: Ages 4–5

Which plants and animals live in the desert and how do they survive in such a harsh climate? Why do most deserts have sandy soil? Dig into deserts, as we discover how plants and animals have adapted to survive. Create a model of a saguaro cactus; which part could you eat? Plant succulents. Make works of art out of desert materials; lots of activities. Our doings in the desert will focus on the Sonoran Desert of the southwestern United States. Science, math, art, and literature guide our exploration!
Instructor: Kristin Soifer

Engineering Solutions to Construction Challenges

Session 1: Grades 4–5 | Session 2: Grades 6–8

Explore concepts of engineering and construction and apply them to practical structural challenges. Create an emergency shelter model with hinged panel construction; investigate transformations and form permutations. Construct a model bridge, make a crank out of straws, then use the crank to test your bridge support. Make a building using pattern blocks, then instruct someone else in how to follow your design. Create a 30-foot long marble run. Problem solving, design, development, testing – engage in the engineering process, and enjoy!
Instructor: John Bell

Even More LEGO-Powered, STEAM Fun

Session 1: Grades 2–3 | Session 2: Grades 3–5

Are YOU powered by creative energy? Add STEAM 'energy' and let loose your LEGO talents! Work as engineer, architect, designer and construction specialist on your own projects. All new assignments! Your 'blueprints' may require some physics. Construction missions make the most of math. Plan, design, build, test – use the engineering process. Graphing, more experiments, creating a world for your LEGO people… So much fun, you'd never know this class is based on STEAM (science, technology, engineering, art and math) concepts. It's a LEGO-palooza!
Instructor: Angela Rhodes

*Fossils & Paleontology

Session 1: Grades 3–4 | Session 2: Grades 5–6

Dig deeper than dinosaurs and discover more about paleontology! 'Follow' some fossilized tracks and decipher animal behavior including what they ate (if you find any coprolite fossils!). Build a stratigraphic column formation to explore how rock layers help to determine the date of a fossil. Develop a geological timeline based on fossils found around the world. How do paleontologists determine an animal's skin or exterior using a fossil? Create fossils and then build a 'museum exhibit' to showcase them. What would a 400-million-year-old insect look like?
Instructor: Hannah Noack-Ruebling

*Geology Rocks our World! Session 1 FULL!

~~Session 1: Grades K–1~~ | Session 2: Grades 1–2

Join our geologist's journey and discover the unseen wonders beneath our feet! Experiment with rock formation (igneous to sedimentary to metamorphic), and create your own edible rock cycle. Take a closer look at tectonic plates as they float on top of hot molten rock. How does the process of plate tectonics create majestic landforms such as mountains, volcanoes, and ocean trenches? 'Explore' caves carved out by water over hundreds of thousands of years, and create stalactites and stalagmites. Learn about crystals and geodes as you create your own. Our hands-on geological adventure is sure to ROCK your world.
Instructor: Kara Viviano

Greek Mythology & the Answers to Life's Mysteries

Session 2: Grades 5–8

Explore the stories of the Greek gods for clues to ancient life and natural events. How many gods must you pacify for a successful crop? Discover the origins of gods in the Bronze Age and how some of their powers overlapped, like Helios and Apollo. How many muses and graces are there and what are their areas of expertise? What is the impact of Homer's epic poem on the ancients? Consider Pythagoras and Archimedes as engineers and philosophers. What contributions did other philosophers make to ancient beliefs? How do magic and astrology relate to mythology?
Instructor: Art Koenig

Harry Potter: Good and Evil in the First Four Books

Session 1: Grades 3–5

Explore the wizarding world of Harry Potter! Magic, werewolves, vampires, trolls and the epic battle of Good versus Evil! Who are the heroes and villains? Why does love protect Harry? How does the magic wand reflect the personality and area of expertise of the characters? Would you debate the rules of Quidditch? Write notes to your classmates using your quill pen and parchment. Make your own judgments as we pose questions, play games and indulge in trivia devoted to the themes found in the first four books.
Instructor: Art Koenig

Make Your (Chess) Move!

Session 1: Grades 5–8 | Session 2: Grades 1–4

Want to enhance and advance your chess stance? Tactics can make or break your chess game – will you use pins and forks? Or skewers? Look at advanced skills as well, such as attacking on opposite wings and end game strategies. Are you skilled at defensive play? Make your best opening move, keep your wits about you, and aim for checkmate of your opponent! Side benefits of the game: Problem-solving skills, coping with the consequences of your decisions, and good sports behavior.
Instructor: Stephen Randoll

*Math Excursions: Beyond the Norm

Session 1: Grades 3–5 | Session 2: Grades 6–8

Take an outside-the-box view of math, as we explore questions such as: Can animals do math? Where can we find math in nature? Why are there so many patterns in math? Work with a mechanical computer, then make your own following Napier's Bones and the Genaille-Lucas ruler. Make a sphere using squares. Discover what the Fibonacci Sequence tells us about the math of nature, architecture and art. Calculate the value of *pi* using toothpicks (Buffon's needle). Practice Pascal's Triangle to explore binomial theorem and probability. Make art with a pendulum and look at topics in topology with Mobius strips. Go beyond the norm with our mental math leaps!
Instructor: Dave Cole

*Molecular Exploration of the Senses

Session 1: Grades 5–6 | Session 2: Grades 3–4

Is chemistry a full-body experience? Join us on a chemist's inquiry of molecules and your senses! What chemical compounds can our noses detect and how? What factors impact the aroma? How does flavor affect the senses of taste and smell? What taste receptors engage as we enjoy slushies? How does that help you identify the chemical compounds of the food you eat? Experiment with the DNA of fruit. What is the pH level of stomach acid? Make a spectroscope to understand the chemistry behind sight. Chemical experiments galore!
Instructor: Morgan Moody

Robotics Using LEGO MINDSTORMS EV3 Kits

Session 1: Grades 2–3

Programming basics using LEGO MINDSTORMS EV3 kits! Consider a real-world problem, create your hypothesis, program your solution and test your results! Build a rover-type robot to handle some basic tasks and experiment with other basic features of the kits. Work with a team and apply the engineering process to your project. Problem-solving skills and creativity using robotics technology prove that the possibilities are endless. Repeat 'programmers': Come solve new problems! Programming will be done on iPads.
Instructor: Lisa Hummel

*Scratch Coding with Music & Sound

Session 2: Grades 2–4

Mix some musical rhythms, and create beats and melodies – using Scratch graphical programming concepts! Write code that plays music and animates backgrounds and characters. Create a DJ mixer! Explore game-physics-based sound effects, and make a music video. Tap your design, logic, creativity and problem-solving abilities. Basic coding and engineering concepts. No prior programming experience required! With Scratch, students "snap" together blocks of commands that the computer can carry out. Scratch allows for complexity or simplicity based on your skill level.
Instructor: Chuck Baker

*STEAMy Activities Beat Winter Chills!

Session 2: Ages 3–5

Make elephant toothpaste, ice cream in a bag, marshmallow towers, and other unusual combinations, as we experiment, create, build, compare, and have fun! Discover the results of mixing vinegar and baking soda or solids and liquids. Test materials to determine if they sink or float in water, and participate in an ice-melting race. What happens when you turn over a glass of water? Construct STEAM boxes and egg beds, and do tie-dye art. Explore your senses through a taste-testing experiment and make a smelling jar. Dress for mess and prepare for plenty of STEAM projects!
Instructor: Kara Horton

*The Stock Market Game: Investing in Fun! FULL!

~~Session 1: Grades 5–8~~

Enter the online world of stock trading, investing and finance through this simulation game! Play in teams and compete against portfolios across the state. How will you manage your hypothetical cash account of $100,000? Maintain your portfolio stocks, bonds, mutual funds and more through research, collaboration with your peers, and teamwork. Interactive charting and graphing tools equip you with 'day-to-day' updates. Explore the global capital marketplace and stay on top of current events and global news that affect your investments. Build your leadership, organization, and negotiation skills as you help your team build a healthy portfolio.
Instructor: Chuck Baker

Parenting Classes – Winter 2020

While students are engaged in their hands-on classes, parents can spend time with expert educators and peers learning about topics near and dear to their hearts. It's nice to have a group that understands the joys and challenges of raising bright, gifted children.

Classes are $20 each, or $80 for the series for an individual or $100 for a couple.

Classes are **FREE** with a GRC membership.

Classes run from 11:10 - 12:40.

Feb. 15 – **Maximizing Potential without Burning Out the Gifted** with Dr. Agnes Meyo

Feb. 22 – **Implications of Social Media on Our Youth** with Nancy Bonn-Winkler

Feb. 29 – **Helping Kids Understand What "Gifted" Really Means** with Dr. John Yunker

March 7 – **Gifted or Misbehaving? Parenting Your Gifted Child** with Dr. Catherine & Rick Hasler

Instructors

Lisa Bader, B.S., Missouri Baptist University, elementary teacher
Chuck Baker, M.S., University of Missouri, math teacher, Ferguson-Florissant School District
John Bell, M.S. Instructional Technology, Rhode Island College, enrichment teacher
Nancy Bonn-Winkler, M.Ed., University of Missouri-St. Louis, counselor of gifted, Rockwood School District
David Cole, B.S., University of Missouri, author of *The Math Kids* series, Equations coach for 15 years
Beth Crites, M.A., Maryville University, elementary teacher, Sts. Joachim and Ann School
Dr. Catherine Hasler, Ph.D., Clinical Psychology, University of Missouri-Columbia, private practice psychologist
Rick Hasler, M.A., Northeastern Illinois University, middle school gifted specialist, MOSAICS, Parkway School District
Kara Horton, M.S., Webster University, kindergarten teacher, Community School
Lisa Hummel, M.A., Lindenwood University, middle and high school science teacher
Art Koenig, A.M., German Literature, Washington University, GRC's "Renaissance Man"
Dr. Agnes Meyo, Psy.D., clinical psychologist, private practice
Morgan Moody, Ph.D., Chemistry, University of Missouri-Columbia
Hannah Noack-Ruebling, M.A., University of Missouri - St. Louis, elementary teacher, St. Louis Public Schools
Stephen Randoll, Rated USCF National Expert, President, St. Louis Chess Foundation
Angela Rhodes, M.A., University of Missouri - St. Louis, Bational Board Certified teacher, St. Louis Public Schools
Kristin Soifer, B.A., Washington University, preschool teacher, University United Methodist Preschool
Kara Viviano, B.A., Washington University, elementary teacher
John Yunker, M.S., licensed psychologist, private practice

Learning Lab Details

Eligibility: All children are eligible to participate in Learning Lab classes. They do not need to be enrolled in gifted programming at their schools.

Dismissal: Children must be picked up at their classroom door promptly at the end of class. If your child has signed up for two classes, he or she will be supervised during the short break between classes, and you will pick up at the end of the second class.

Field trips: Occasionally, a class will have a field trip. Unless otherwise specified, students will be expected to meet at the destination, with round-trip transportation provided by parents.

Parking: Parking is available on the street or in the garage lot just west of the school building. Please enter and exit the building through the main front doors.

Notification: If the class your child signed up for is full or cancelled, you will be notified and given the opportunity to sign up for an alternate class.

Photos: Pictures will be taken of Learning Lab classes, and may be used for promotional purposes. If you do not want your child's photo used, please contact the office in writing before the start of classes.

GRC Membership

Your membership will help us improve existing programs, extend offerings and reach more children. You also receive benefits like priority registration, program discounts, and free parenting classes. It's quick, easy and tax-deductible (as allowed by law). Sign up by adding the appropriate amount to the total on the Learning Lab form or joining online. Memberships are valid for one year.

Wise Philanthropist ($1,000+)
- Priority registration for all programs
- FREE parenting classes ($160 value)
- FREE Learning Lab course
- $50 discount off a Summer Academy
- Learning Lab scholarship in your name at your request
- Use of GRC library
- GRC logo lapel pin

Brilliant Benefactor ($500 - $999)
- Priority registration for all programs
- FREE parenting classes ($160 value)
- FREE Learning Lab course
- $50 discount off a Summer Academy
- Learning Lab scholarship in your name at your request
- Use of GRC library

Talented Patron ($250 - $499)
- Priority registration for all programs
- FREE parenting classes ($160 value)
- $10 off two Learning Lab courses
- $50 discount off a Summer Academy
- Use of GRC library

Sharp Sponsor ($150 - $249)
- Priority registration for all programs
- FREE parenting classes ($160 value)
- $10 off two Learning Lab courses
- $25 discount off a Summer Academy
- Use of GRC library

Intelligent Friend ($100 - $149)
- Priority registration for all programs
- FREE parenting classes ($160 value)
- $10 off two Learning Lab courses
- Use of GRC library

Gifted Member ($60 - $99)
- Priority registration for all programs
- FREE parenting classes ($160 value)
- Use of GRC library

Imaginative Institution ($100)
- For schools and other institutions
- Recognition in newsletters and on website

Registration Form – Winter 2020

(Registration is also available online at giftedresourcecouncil.org – online credit card payments will be charged a small service fee.)

Child's name: _____ Age: _____ Birthdate: _____ Grade: _____

Address (Street/City/State/Zip): _____

Parent name: _____ Preferred phone: _____

Parent name: _____ Preferred phone: _____

Parent email(s): _____

Parent(s) occupations/employer: _____

EMERGENCY CONTACT (if parents can't be reached):

Name/relationship: _____ Phone: _____

Physician & phone: _____

Allergies or medical limitations: _____

Please select your child's class choice(s) from the list(s) below, as well as an alternate.

9:30 - 11:00			11:10 - 12:40	
First choice	Alternate		First choice	Alternate	
☐	☐	Doings in the Desert (Ages 3 - 4)	☐	☐	STEAMy Activities to Beat Winter Chills (Ages 3-5)
☐	☐	Animals: Biology, Ecology & Habitats (Ages 4 - 5)	☐	☐	Doings in the Desert (Ages 4 - 5)
☐	☐	~~Geology Rocks Our World! (Ages K - 1st)~~ **FULL!!**	☐	☐	Animals: Biology, Ecology & Habitats (K - 1st)
☐	☐	Art Challenge: Make It Like a Master (1st - 2nd)	☐	☐	Geology Rocks Our World! (1st - 2nd)
☐	☐	Robotics using LEGO MINDSTORMS EV3 Kits (2nd - 3rd)	☐	☐	Make Your (Chess) Move! (1st - 4th)
☐	☐	Even More LEGO-Powered STEAM Fun (2nd - 3rd)	☐	☐	Art Challenge: Make It Like a Master (2nd - 3rd)
☐	☐	Fossils & Paleontology (3rd - 4th)	☐	☐	Scratch Coding with Music & Sound (2nd - 4th)
☐	☐	Harry Potter: Good & Evil in the 1st Four Books (3rd - 5th)	☐	☐	Molecular Exploration of the Senses (3rd- 4th)
☐	☐	Math Excursions: Beyond the Norm (3rd - 5th)	☐	☐	Even More LEGO-Powered STEAM Fun (3rd - 5th)
☐	☐	Engineering Solutions to Construction Challenges (4th- 5th)	☐	☐	Advanced Robotics LEGO MINDSTORMS EV3 Kits (4th - 6th)
☐	☐	Molecular Exploration of the Senses (5th - 6th)	☐	☐	Fossils & Paleontology (5th- 6th)
☐	☐	Make Your (Chess) Move! (5th - 8th)	☐	☐	Greek Mythology & the Answers to Life's Mysteries (5th - 8th)
☐	☐	~~The Stock Market Game: Investing in Fun! (5th – 8th)~~ **FULL!!**	☐	☐	Math Excursions (6th - 8th)
			☐	☐	Engineering Solutions to Construction Challenges (6th- 8th)

Each six-week class is $100. No refunds after Feb. 8, 2020. Members' priority registration good until Dec. 31. All others taken on a first-come, first-served basis.

Are you a current member of GRC? ☐ Yes ☐ No

Would you like to become a member? ☐ Yes ☐ No

At which level? _____

Has your child attended our programs previously? ☐ Yes ☐ No

How did you learn about GRC? _____

Return form & payment to: Gifted Resource Council
357 Marshall Ave., Ste. 6
St. Louis, MO 63119

Total Fees Enclosed:

First class: _____

Second class: _____

Membership: _____
(optional)

TOTAL: _____

Please make check payable to:
Gifted Resource Council

Gifted Resource Council
357 Marshall Ave., Ste. 6
St. Louis, MO 63119
giftedresourcecouncil.org

Non-Profit Org.
U.S. Postage
PAID
St. Louis, MO
Permit #4757

Winter Learning Lab Information Inside – Registration is Open!

Looking ahead, mark your calendars for GRC's Summer Academies 2020!

June 8– June 19: Math, Marvels & More (K-2)
ECO Academy (Grades 3-8)

June 22– July 2:
Ancient Academy - Rome (Grades 3-8)
Jr. Science Searchers (K)
Space Academy (Grades 1-5)
Advanced Space Academy (Grades 6-8)

July 6– July 17:
Academy Americana (Grades 1-3)
Ancient Academy - Rome (Grades 3-8)
Jr. Science Searchers (K)
Space Academy (Grades 1-5)
Advanced Space Academy (Grades 6-8)