Summer Programs
Mary and Frances Youth Center

2019 Discovery Class Descriptions

Week 1: July 29 – August 2

Morning Classes: 9:00 a.m. – 12:00 p.m.

- **Operation Health Care:** Doctors, nurses, pharmacists, physical therapists, clinical laboratory scientists, and nuclear medicine technologists...what do they do? Join us and learn about these exciting fields through team work and hands-on activities that take you across campus. Start your journey towards exciting career opportunities in health care to discover what it takes to scrub in!

Afternoon Classes: 12:30 p.m. – 3:30 p.m.

- **Think Global, Act Local:** Go green and learn the basic principles of sustainability and environmental science. Plant and harvest food in VCU's urban garden, help remove invasive plants in our community, practice bike maintenance with RamBikes, create recycled art, and so much more! Leave camp with your own sustainable creations including a cyanotype print, sustainability "zine," and bicycle spoke flower.

Full-Day Classes: 9:00 a.m. – 3:30 p.m.

- **Engineering Your World:** Create the future! Inventors use skills in bioengineering, computer science, robotics, and so much more to design products we use every day. Students will engage in engineering design and scientific investigations each day, while coming up with their own invention. On the last day, students will present a prototype of their ingenious creation! Experience how STEM-H is present in your everyday life-school, home and everywhere.

- **Two Words: Video Games:** Life often gives us obstacles, but games give us an opportunity to work through challenges from different angles and explore other possibilities! Students will be introduced to 2D-based video game design and build games addressing an issue or a problem that is important to them. From designing characters to coding levels, students will combine handmade assets with Unity, a real-time engine, to bring their creations to life in the computer!

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Week 2: August 5-9

Morning Classes: 9:00 a.m. – 12:00 p.m.

- **The Think Tank**: "How can we make our lives easier?" Design Thinking can help! Learn what design thinking is and how it teaches students critical thinking skills that can be used in any STEAM-H career to solve everyday problems. Students will learn six steps of design thinking: empathy, define, ideate, prototype, test, and implement. At the end of the week, students will embrace their entrepreneurial spirit and present their ideas/products to family and friends.

- **Community Theatre:** And...Action! Join our learning community as you explore the elements of theatre, improvisation, and scripting. Prepare and create your own variety show and have the opportunity to present it to family and friends at the end of the week. Come discover the joy and challenge of being on stage!

- **Swinging into Primates:** Ever wonder what zookeepers really do? Ever watch a tv show about animals and think "how can I work with animals?" This hands-on class explores monkeys and apes around the world and the many careers in primatology. Students will learn ways to contribute to conserving endangered species and present on their favorite primate. Join us for a week of guest speakers, games, videos, and flying drones to discover primate diversity!

Afternoon Classes: 12:30 p.m. – 3:30 p.m.

- **Mind Collaging:** History is about events of the past and stories of great people, but did you know each of us has our own unique history, a chronicle of our own stories? Mind collaging is all about using words and art to document your life, from where you've been to where you want to go! It's fun, easy, and a great way to learn insights about yourself. At the end, you will present a visual roadmap of your history to family and friends!

- **Discovering Genetics:** Are you interested in learning more about what makes you, you? At VCU's EDGE Lab, we study how both your genes (DNA) and your environment help to shape who you are. This class will use activities and real scientific research to introduce students to DNA and genetics, and what geneticists do. Learn more about genetics through researching genetically-linked diseases, DNA extraction, and edible DNA modeling. Discover what it is like to be a scientist and how genetics is changing the field of medicine!

- **Experimental Science:** Help solve world-wide problems, create your own experiments, and become a scientist! From ecologists to paleontologists, explore different scientific careers and what it took to get there! Start your own research to solve a critical issue happening in the world, conduct a week-long experiment on Zebrafish, and discover how science is used in careers such as medical illustration and primatology.