RIT Kids on Campus is a STEAM focused day camp for youth entering grades 5-12. Our fun learning workshops are chosen to inspire active minds. Our camp day includes project-based instruction, break time for recreation, and supervised social interaction. Kids on Campus cost $300 per week, which includes an awesome workshop, nutritious and delicious lunch buffet, indoor or outdoor recreation with option for pool use and a camp t-shirt.

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Planning Sheet:
Recommended for Grades 5-6

Creative Coding With Processing
*July 5th-15th or July 18th-29th*
How do people create games such as Angry Birds, Minecraft, or Call of Duty? It all starts with computer programming. In this beginners-level coding class, students will learn basic object-oriented programming using Processing. At the end of two weeks, students will be able to write code and create a simple game.

Photoshop Foundations
*July 11th-15th or July 25th-29th*
Students will use Adobe Photoshop to create their own digital works of art! Some of the projects include: monster mashups, ultimate bedroom design, and superhero creation. Students will create their own digital art series that they will be able to print and take home.

Website Design
*July 5th-8th or July 18th-22nd*
Every day, we use websites to look up information, play games or connect with friends. In this intro-level website design course, students will create their own website with original graphics created in Adobe Photoshop. By the end of this workshop, students will understand the basics of website design, how to make a website to wow visitors, and receive a primer on internet safety. Students will be using Wix, a web design tool.

Recommended for Grades 7-11

3d Digital Graphics Modelling
*July 5th-15th or July 18th-29th*
In this introductory course, students will learn how to create their own 3D game assets and import them into a virtual environment. They will learn Autodesk Maya, the industry standard 3D animation software used for nearly all major video games, as well as, 3D animated films like Frozen, Despicable Me, and How to Train Your Dragon.

Circuits And Gears
*July 5th-15th or July 18th-29th*
Experiment with an Arduino microcontroller and physical hardware to create an infinite amount of circuitry projects. With the Arduino board, students can create everything from robots to hand-held games to digital burglar alarms.

Creative Coding With Java
*July 5th-15th or July 18th-29th*
In this class, students will be diving into the world of game making and computer programming. We will start by learning simple programming techniques in Java and move on to apply those concepts to a more complex game with awesome visuals.

Digital Graphics Concept Art: World Building
*July 18th-22nd or July 25th-29th*
In this workshop, students will use Adobe Photoshop to create their own concept art. Participants will learn perspective fundamentals to design their own environments with a combination of traditional hand-drawing and photo manipulation.
**Recommended for Grades 7-11**

**The Magic of Flights and Aeronautics**  
**July 11th-15th**
The Wright brothers are famous for flying airplanes. Their inspiration came from flying a model airplane as children. Seeing planes float in the air is magical. In this class students will learn to build and fly model airplanes. Topics include: Newton’s three laws of physics, woodworking, and use of a laser cutter. Different glider designs will be discussed, including ornithopters and ribbed wing designs. Up to four different designs will be built and kept by the students. The instructor is a winning Science Olympiad coach (Elastic Launch Glider). Students will be able to join the Academy of Model Aeronautics for free.

**Manga and Comic Creators**  
**July 11th-15th or July 25th-29th**
This course is designed exclusively for students interested in comics, anime, manga and storyboarding. Students will learn how to create character designs and tell a story through sequential art. This class will be a combination of traditional pencil drawing, inking and digital coloring using Adobe Photoshop. Suggested pairing: Digital Graphics.

**Medical 3D Modelling**  
**July 25th-29th**
For hundreds of years, the detailed drawings of specialized artists have filled medical textbooks. In this workshop, students will take on the role of medical illustrators and use Autodesk Maya to create 3D renderings of the body. Participants will learn basic human anatomy and 3D sculpting. They will work digitally, drawing organs and learning how to animate the internal structures of the body. This workshop is perfect for anyone interested in medicine or 3D graphics.

**Minecraft Modding**  
**July 5th-15th or July 18th-29th**
Dig into the messy code that powers Minecraft and see what it takes to create a mod. Through this open-world, highly creative environment, experiment with creating your own block types, gear, and crafting recipes. Learn how to spawn blocks at will and generate terrain with code.

**Poems That M-O-o-o-Ve**  
**July 11th-15th**
In this workshop, students will engage with poetry beyond the printed page utilizing RIT’s digital and visual resources. Students will participate in morning and afternoon sessions learning about ways poets challenge their poetry out of traditional forms and into visual, kinetic, and/or experiential forms of expression.

**Video Production**  
**July 5th-15th or July 18th-29th**
In this intense and exciting workshop, students will learn the basics of video production. Working in teams, students will explore documentary filmmaking, learning about Generation Youth and the critical craft of storyboarding. After students have shot their footage, they will be taught professional editing techniques and a few special effects tricks. The final workshop film will have a public debuting, airing on local television stations CW16, 13WHAM and RCTV Channel 15!
Recommended for Grades 9-12

**Fun & Games With Computer Simulations**  
*July 18th-22nd*  
We will spend time learning the skills to build simulations, then we will model various situations including economics, business, sustainability, and social networking. In small working groups, you will have the opportunity to study various questions and model the impact of minor/major decisions.

**Game Coding with the Unreal Engine**  
*July 5th-15th or July 18th-29th*  
Unreal Engine is one of the most popular game engines used for making commercial and indie games. This workshop is designed to teach you how to create 2D or 3D interactive environments and characters, place them into your scene and connect the logic so you breathe life into your own designed worlds.

**GenCyber: Cybersecurity Introduction**  
*July 18th- July 22nd*  
In this workshop, students will work collaboratively and learn how to deal with cyber threats through a variety of hands-on, "scary fun" activities including password hacking, live malware handling, and smartphone protection. The workshop will also introduce diverse careers in cybersecurity available for students with different interests and backgrounds.

**GenCyber: Cybersecurity Advanced**  
*July 25th-July 29th*  
In this workshop, student teams will conduct a security audit on a large software system, and learn attack and defense strategies along the way. This workshop is only open to either (1) students who participated in a GenCyber camp anywhere in the USA (including at RIT) in the summers of 2015 or 2014, or (2) students who can present evidence of prior cybersecurity knowledge as part of regular or extra-curricular school activities.

**Level Design**  
*July 5th-15th or July 18th-29th*  
Explore the world of 3D environments while creating a level for the popular computer game Counter Strike: Global Offensive (CS:GO). By registering you for this workshop, your parents understand that CS:GO is a first-person shooter game with simulated violence.

**Restaurant Management Experience**  
*July 25th-29th*  
Ever wonder what it’s like to run a real restaurant? This workshop is great for anyone interested in exploring a career in the culinary arts. For the first time in its history, Kids on Campus will be going behind-the-scenes into a large commercial kitchen! Workshop participants will learn from professionals how to think like chefs as they explore menu planning, recipes, nutrition, and the process of ordering ingredients. Much more than a cooking class, the students in this workshop will learn proper use of a variety of professional food prep equipment, personal kitchen safety, critical food regulations and how to create delicious meals that are nutritionally balanced, meet budgets, follow safety regulations and, most importantly, delight their customers.
Recommended for Grades 9-12

The Science Of Fuel Cells
July 11th-15th or July 18th-22nd
As automotive technology evolves one thing is clear—Clean, Renewable Energy use is critical! In this ground-breaking course, students will work with cutting-edge technology as they experiment with electricity generation in a laboratory environment.

Vignelli Design Studies Experience
July 11th-15th
Led by staff in the prestigious Vignelli Center for Design Studies, this workshop is intended for students interested in learning about graphic design or developing design skills. They will have a unique opportunity to view world-class design collections at RIT and see real examples of excellent design work by important designers. This hands-on workshop will also teach design skills, such as color theory, design thinking, typography and visual communications. Students will work in studio and in a computer lab designing their own poster works and, at the end of the week, will participate in an exhibit of their work in the Vignelli Center for Design Studies at RIT.

Planning Sheet:
Camp runs July 5th-July 29th in 4 Week intervals

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A Day at Kids on Campus

8:45 am - 9:00 am Homeroom
Students arrive to their morning homerooms in the Golisano College of Computing and Information Sciences.

9:00 am - 11:00 am Workshop time!
Students travel to their labs and studios. Our facilities are housed in several different colleges across the RIT campus.

11:00 am - 12:00 pm Mid-Day Recreation
Students pick from a variety of unique activities and games.

12:00 pm -1:00 pm Lunch Buffet
Students travel together to the Ritz, where they enjoy a private lunch buffet and have time to relax and socialize.

1:00 pm - 3:00 pm Afternoon Workshop time!
Refreshed, students return to their labs and studios to continue work on their projects.

3:00 pm - 5:00 pm Optional Extended Day
An additional two hours of activities and games.

Register online at: kidsoncampus.rit.edu

Summer Workshop Line-up:

- 3d Digital Graphics Modelling
- 3D Medical Modelling
- Circuits And Gears
- Creative Coding With Java
- Creative Coding With Processing
- Digital Graphics Concept Art: World Building
- Fun & Games With Computer Simulations
- Game Coding with the Unreal Engine (C++)
- GenCyber: Cybersecurity - Introduction
- GenCyber: Cybersecurity - Advanced Level Design
- Magic of Flight and Aeronautics
- Manga and Comic Creators
- Minecraft Modding
- Photoshop Foundations
- Poems That M-O-o-o-Ve
- Restaurant Management Experience
- The Science Of Fuel Cells!
- Video Production
- Vignelli Design Studies Experience
- Website Design