Week 1 - May 30th: 3-D Printing & Hardware Engineering Build: Super Hero

3-D Printing-Super Heros:

3D printers are one of the most widely applicable and fun inventions on the tech scene today! In 3D Printing: Superheroes To The Rescue, we will explore the basic concepts of 3D printing and computer-aided design, or CAD, to design and create our very own 3D printed superhero! Students will take their hand drawn design and learn how to extrude it into a 3D model that can then be modified to be printed in: 3D.
Also, students take on the role of a hardware engineer, a professional who uses science, math and technology to create products related to computer hardware. More specifically, this unit will have students work in teams to build fully functional 3D Printers. Students will be introduced to concepts such as electrical circuits, ergonomics and computer interfaces.

Week 2 - June 5th: EV3 LEGO Robotics: Rescue Robots

EV3 Robotics Rescue Robots

This LEGO® Robotics: Rescue Robots curriculum is designed to introduce students to the world of not only building, but also programming basic robots. Throughout this course the students will explore different ways in which a robot could be utilized to respond in disaster situations such as constructing and programming a robot designed to respond to an event of catastrophic proportions, an apocalypse!

Week 3 - June 12th: Minecraft Modding: Blocks, Armour and Swords

Minecraft Modding: Blocks, Armour and Swords

What's better than playing minecraft? Hacking it! In this camp, students will create and deploy custom armour, blocks, skins, tools and more. The camp is open design focused allowing kids the flexibility to design and built custom mods from the ideas and solutions they brainstorm in class.

Week 4 - June 19th: Advance Computer Building with Raspberry PI

Advance Computer Building with Raspberry PI

Today's kids grow up with "black box" phones, computers and gadgets that come in beautiful packages, but leave no room for tinkering or understanding how they work. Engineering for Kids believe it is critical to understand how technology works in order to make sense of our environment and invent the future.

The Computer Kit comes with everything you need to assemble your own computer. This learning system teaches kids engineering and programming through a combination

of engaging storyline, physical building, and Raspberry Pi Edition of Minecraft.

Week 5 - June 26th: Fusion Video Game Design: Motocross

Fusion Video Game Design: Motorcross

Ladies and gentlemen start your engines! On your mark, get set, GO! Kids are drawn to the excitement of a race. They hoot and holler in anticipation that the car they chose will cross the finish line first. We will use the Engineering Design Process to create a storyboard that will outline the rules of play and characters for our game based on the basic rules of racing. Then, we will bring our storyboard to life with programming. At the end of the program, everyone takes home a working Windows-compatible game

Week 6 - July 3rd: Advance Engineering Challenges: Let's the Games Begin!

In this modified four day holiday week camp, kids will get to experience a variety of our engineering programs.

Monday - Fusion Game Design - Pong
Tuesday - No Camp
Wednesday - Minecraft Modding Camp
Thursday - Hands On - Engineering Design Challenges
Friday - Intro to Programming with Python

Week 7 - July 10th: Minecraft Modding in Adventure Mode

Minecraft Modding in Adventure Mode

Adventure mode is a game mode intended for player-created maps by limiting some of the gameplay in Minecraft, in which the player cannot directly destroy most blocks to avoid spoiling adventure maps or griefing servers. Most blocks cannot be destroyed without the proper items. Students will need to create specific tools to accomplish specific tasks in order to successfully complete the challenges in adventure mode.

Week 8 - July 17th: Coding Combat - Intro to Python and Java Programming

Coding Combat: Intro to Python & Java

With the right environment, learning the basics of formal syntax and typing code can be fun and intuitive for students. By strengthening their typing, syntax and debugging skills, we empower students to feel capable of building real programs successfully. Armed with basic knowledge of the structure and syntax of simple programs, students are ready to tackle more advanced topics. Conditionals, functions, and

events, oh my! Computer Science 2 is where students move past the programming-toy stage into writing code similar to that they would use in the next major software or killer app!

Week 9 -July 24th: 3-D Printing & Hardware Engineering Build: Minecraft Creations

3D Printing & Hardware Engineering Build

3D printing and Minecraft both represent boundless opportunity for creating even our wildest of ideas! In 3D Printing: Minecraft Creations, students will explore the basic concepts of 3D printing and computeraided design, or CAD, to bring their most awesome Minecraft creation to life! Students will take their Minecraft design out of the world of Minecraft and learn how to extrude it into a 3D model that can then be modified to be printed in 3D.
Also, students take on the role of a hardware engineer, a professional who uses science, math and technology to create products related to computer hardware. More specifically, this unit will have students work in teams to build fully functional 3D Printers. Students will be introduced to concepts such as electrical circuits, ergonomics and computer interface.

Week 10 - July 31st: EV3 Robotics: Mission to Mars

EV3 Robotics: Mission to Mars

Mission Mars curriculum is designed to introduce students to the world of not only building, but also programming basic robots. Throughout this course the students will explore different ways in which a robot could be utilized to explore a distant planet.