PARENT LETTER

ADVANCED MINECRAFTING, PROGRAMMING AND LOGIC! (PART 2)

Thank you for signing your child up for our Advanced Minecrafting, Programming and Logic camp! We would like to fill you in on what your child will be learning this week at camp.

*Note: If you would like your child to be able to continue working on the programs he or she started at camp this week, please send him/her with a USB flash drive on the last day of camp.

Instructions on how to [download](#) the ComputerCraft Mod.

DAY 1

On the first day of camp, we will refresh and build upon our knowledge of programming fundamentals, including variables, for loops, while loops, conditional statements, and functions. We will start to apply this knowledge to writing larger and more complex programs, such as automated building programs. We will also learn how to write and edit easily outside of the Minecraft environment, using tools more common to traditional programming.

DAY 2

On the second day of camp we will add to our programming toolbox by learning about the repeat loop, string parsing functions, function arguments, mathematical functions, and program parameters (pieces of data passed to a program as it is run). We will learn about file management and handling, both inside the Minecraft environment and out. We will use what we've learned to write some simple games!

DAY 3

On the third day of camp we will learn about GPS systems and how they work. We will set one up in-game and learn how to use it to teach our turtle where it is in the world, and how to navigate to another location. We will learn how triangulation works and why multiple satellites are needed to figure out where something is. We will also start to plan and work on our big project: A remote-controlled mining program.

DAY 4

On the fourth day we will learn about communication protocols and how information is sent between computers. We will write a program that sends commands and data back and forth between two computers, and we will use what we've learned to add the remote-controlled functionality to our big project, allowing all of our commands to be sent to the turtle from far away.

DAY 5

On the last day of camp we will start to design and code a graphical user interface (or GUI, sometimes pronounced "gooey"). We will write a program that displays different information on a screen depending on what button is pressed, and then we will use what we've learned to add a GUI to the computer that controls our turtles in our big project.

I hope your child has as much fun as we do at this camp! Please let us know if you have any questions or feedback! We hope to see you again soon!

Best Regards,

Imagine That! and Future Tech Staff