OntarioTech Engineering & Applied Science

Learning to Code: Beginner Python
Virtual Camp

Wednesday, July 2 to Friday, July 4 (3-days)
10:00 AM to 12:00 PM

Camp Description

Campers will be introduced to the basics of Python programming using **EduBlocks**. From operators to conditional statements, to loops, campers will learn to code through a series of exciting coding challenges that put their knowledge to the test. This introductory spy-themed camp will prepare campers for any future coding classes or coding languages they want to learn. No coding experience is required!

General Technology Needs

Students taking part in the sessions will each need a computer to join the sessions. Tablets (e.g. iPad), other mobile devices and gaming consoles are not recommended for the program. Ensure students will have internet access with minimum download speed of 5Mbps and an audio device (e.g. speakers, headphones/earbuds, headset).

Daily Schedule

10:00 AM	Virtual Room Opens
10:00 AM - 10:05 AM	Attendance
10:05 AM - 10:55 AM	Lesson and Activity Time
10:55 AM - 11:00 AM	Break
11:00 AM - 11:55 AM	Lesson and Activity Time
11:55 AM - 12:00 PM	Wrap Up

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Camp Agenda

Day 1 - Mission Code: Identity

Wednesday, July 2 | 10:00 AM to 12:00 PM

Our Python adventure kicks off with a focus on creativity, coding, and staying safe online! Campers will start by exploring the basics of cybersecurity, learning how to protect their information like true digital detectives. Then, using the Engineering Design Process, they'll plan and code a personalized introduction using print statements. To wrap up the day, campers will take on their first mission—creating a spy-themed cover-up story that hides silly secret messages using input and output. It's a fun and interactive start to a week full of coding adventures!

Day 2 - Debug and Disguise

Thursday, July 3 | 10:00 AM to 12:00 PM

Campers will sharpen their detective skills as they dive into error-busting during *Operation Code Crunch*! They'll learn how to identify and fix common Python mistakes like syntax and value errors—gaining confidence with debugging and understanding data types along the way. After cracking the code, they'll put their skills to work by designing their very own chatbot disguised as a top-secret digital assistant. Using print statements, input, and conditional logic, their bots will respond to users and recognize hidden phrases. It's a day of coding, creativity, and clever disguises!

Day 3 - Escape and Encrypt

Friday, July 4 | 10:00 AM to 12:00 PM

The final day of camp brings high-stakes spy missions and code-breaking fun! Campers will first take on the challenge of cracking a secure digital vault by building a number-guessing game using loops and conditionals—learning the power of repetition, logic, and persistence. Then, it's time to escape a high-tech underground base! Acting as secret agents, campers will use Python code to navigate a maze filled with traps and tricky turns. This action-packed finale blends storytelling, problem-solving, and programming to wrap up the week with excitement and confidence!

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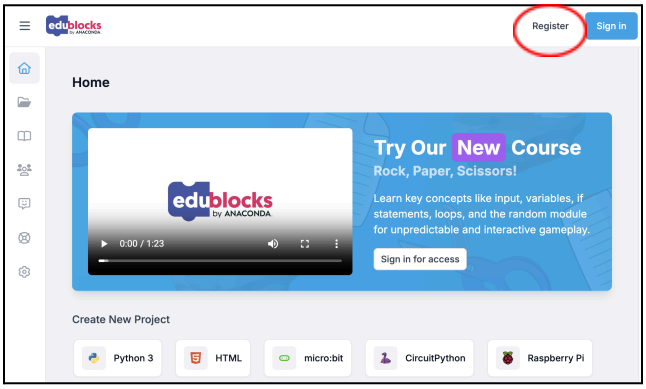
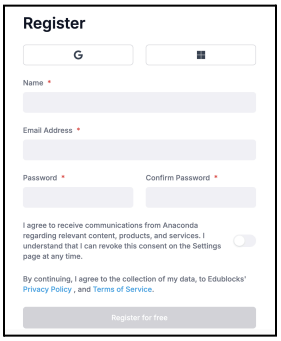
Getting Set Up in Edublocks

STEP 1: Click on the link: https://app.edublocks.org/. Once you have clicked on the link, your page should look like the image on the right.



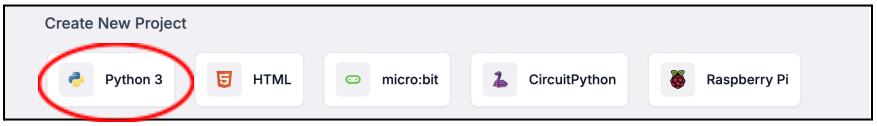
STEP 2: Click on the white "Register" button in the upper right corner to create a new account. A new page will appear as shown in the image on the right.

Once all fields have been completed, click on the blue "Register for free" to create an account. You can connect and use either a google, microsoft or anaconda email.



Please ensure your child has access to the email address and password on the first day of camp!

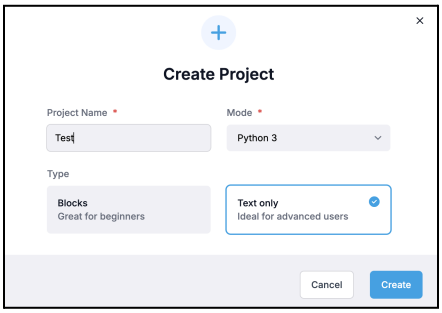
STEP 3: On the homepage, find "Create New Project" as shown in the image below and click on "**Python 3**".



This will prompt a new page to appear as pictured on the right.

STEP 4:

Enter a project name (Test).
Click on "Text Only".
Click on the blue "Create" button to launch a new workspace.



You've just set up your first project workspace — now you're all set for an exciting coding camp adventure!