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# ACADECODERS SUMMER 2024 (AGES 8+)

AcadeCoders is a coding and robotics camp focused on introducing campers to various technological disciplines while also ensuring they enjoy physical activities outdoors.

There will be a total of 8 weeks, each with its own major focus and learning goals. The maximum session size is 12 due to the number of available desktops and other materials. If a session is full, depending on the weekly theme, you may still register; however, you must provide your own laptop. Each session is adaptable for different age groups.

Each week will have a final project that the campers can take home. Each camper will be required to have a USB stick for these projects.

Returning this summer is our enriched Athletiks summer programme. As we would like to spend more time outside and being active, AcadeCap has developed age-specific, specialized instruction in athletics. Each week, campers of all ages will participate in a program to develop athletic skills in individual and team sports. This is in addition to their time spent in i STEAM (Science Technology, Engineering, Art, Math) and coding.



Week 1: June 24 - June 28

#### CIRCUITS

AcadeCoders will look into the electrifying world of circuits. Through engaging activities, campers will gain hands-on experience using Pascoe Blocks, Makey Makeys, and other circuit components, to craft a variety of exciting circuitry projects. Get ready for a camp experience that sparks curiosity and creativity!

**Learning Goals:** Coders will develop an understanding of how circuits and electricity work, and how to use basic components (buttons, switches, resistors, lights) to make circuits.

Final Product: AcadeCoders will create custom controllers for various games and programs on their computers using Makey Makeys.

## Week 2: July 2 – July 5 (4 days)

## GAME DEVELPOMENT WITH BLOXELS

This week Coders will explore video game creation using Bloxels. Campers will embark on a journey through the entire game development process, from crafting pixel art to designing captivating levels. Get ready for an exciting adventure that unlocks creativity and introduces the world of game design!

**Learning Goals:** AcadeCoders will learn about game and level design and how to create engaging and challenging experiences for players while designing games.

Final Product: Each coder will have created their own video game by the end of the week.

## Week 3: July 8 – July 12

LEGO SPIKE ROBOTICS

During the Lego robotics week, AcadeCoders will delve into the realm of robotics using Lego Spike robotics kits. Campers will design and breathe life into robots capable of performing diverse tasks, all while mastering the art of block coding or Python programming. Brace yourselves for an exhilarating adventure that combines creativity, imagination and technology in the exciting field of robotics!

**Learning Goals:** Coders will develop an understanding of robotics and how to design and build robots that can move around. They will learn about different types of sensors and how they are used to enable robots interact with their environment.

Final Product: In teams, Coders will create and program robots to complete a challenge such as an obstacle course, race, or battle.

## Week 4: July 15 – July 19

## SCRATCH GAME CREATION

This week AcadeCoders will take on the world of game creation and visual storytelling using Scratch. They'll not only craft games; they'll delve into the essentials of programming flow and logic. Prepare for a camp that not only sparks creativity but also lays the foundation for fundamental programming skills!

Learning Goals: AcadeCoders will learn the basics of programming with scratch and will develop an understanding of variables, conditional operations, and loops.

Final Product: AcadeCoders will have created a game or interactive animation in scratch by the end of this week.

Week 5: July 22 – July 26

#### **CIRCUITS AND AUDIO SYNTHS**

AcadeCoders will learn about the wonders of electronic circuits, delving into the creation of electronic synth instruments and noisemakers using analog circuits. This hands-on experience will introduce them to the fascinating world of electronics and allow them to use their imagination and creativity to craft unique and captivating electronic devices. Get ready for a camp adventure that combines learning and hands-on exploration of electronic circuits!

**Learning Goals:** Coders will further develop their understanding of circuits, and learn how to use basic components to create and use oscillators to make noise.

Final Product: AcadeCoders will have created their own noisemaker synth by the end of the week.

#### Week 6: July 29- August 2

LEGO SPIKE ROBOTICS

The ever popular Lego Robotics camp is back for a second week. Using the Lego Spike kits, AcadeCoders will design and breathe life into robots capable of performing diverse tasks, all while mastering the art of block coding or Python programming. If your child attended the earlier week of Lego robotics, they will build on the skills they learned.

**Learning Goals:** Coders will develop an understanding of robotics and how to design and build robots that can move around. They will learn about different types of sensors and how they are used to enable robots interact with their environment.

Final Product: In teams, Coders will create and program robots to complete a challenge such as an obstacle course, race, or battle.

#### Week 7: August 6 – August 9 (4 days)

Coders will dive into the fundamentals of Python programming. Our curriculum includes understanding how computers store and utilize information. Campers will grasp the essentials of programming, including the use of variables, conditional statements, and loops to craft their own program.

**Learning Goals:** Coders will learn how to use fundamental coding principles such as variables and conditionals. They will apply these principles along with user input and output to create code that people can interact with.

Final Product: By the end of this week, AcadeCoders will have created intuitive text interaction games with Python.

#### Week 8: August 12 – August 16

SONIC PI

**PYTHON** 

This week AcadeCoders will explore the creative intersection of music and coding using Sonic Pi, a musical coding language. In collaborative groups, campers will harness the power of code to produce beats and melodies, culminating in the composition of unique songs to be shared with the camp community at the end of the week. Brace yourselves for a harmonious and innovative camp experience that blends music and coding in an exciting, collaborative setting!

**Learning Goals:** Coders will learn how to use loops to create simple musical algorithms and generate musical sequences with code. They will develop an understanding of how loops can be used to create patterns and algorithms.

Final Product: By the end of this week, groups of AcadeCoders will have created their own electronic songs.

# 2024 SUMMER READING & WRITING PROGRAMME AVAILABLE WEEKS 4 TO 8

# Systematic Multisensory Intensive Literacy Education (SMILE)

For students with reading and writing difficulties, we offer SMILE, Orton Gillingham-based multisensory teaching sessions), in addition to the activities provided during our AcadeCamp or AcadeCoders sessions. The OG multisensory teaching sessions will be offered for 45 minutes, 5 times a week (4 times a week during holiday weeks), and the participant must register for at least 4 weeks, or preferably all summer, in order for the programme to be effective. If a student has not been evaluated previously, pre- and post-testing will be provided. With the Orton Gillingham approach, a student learns using the visual, auditory, kinesthetic, and tactile senses simultaneously. The OG multisensory teaching sessions will take place within the 9:00 am – 4:00 pm camp day.

# **Additional Information**

Camp Hours:9:00 am - 4:00 pmPre & Post Camp Care:8:00 am - 9:00 am; 4:30 pm - 5:00 pmLunch Program:Includes 2x pizza on Mondays (on 5-day weeks), hot lunch with dessert & fruit Tuesdays - FridaysContact Information:Email us at info@acadecap.org or call 613-721-3872What do I pack? What is the daily schedule? For more information, please visit the AcadeCoders FAQ page athttp://www.acadecap.org/frequently-asked-questions-acadecoders/

\*\*Please note that masks are optional. However, if your child is returning from illness, they are to wear a mask for 10 days following the onset of the symptom(s



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#### **Registration Form: Selection of Weeks**

Special concerns				l, fears, ASD, ADHD, etc.	
Emergency Contacts:	Name: Name:				
Postal Code:         Email:           Tel-Home:         \lowslashington work:         \lowslashington work:         Cell:         \lowslashington work:         \lowslashington work: <t< th=""></t<>					
Parent's/Guardia	an's Name:				
DOB: YYYY/MM/DD Current Grade: Age: Health Card#:					
Child's Name:	Child's Name: Sex:  \[ M / \[ F				
Please know, th	ere are no refunds fo	r the weekly se	essions.		
TOTAL FEES: (A+E				\$	
	. /				
Cheese Pepperoni Subtotal Meal Fees(C)				\$	
Pizza (Mondays C		# <b>x</b>	\$		
	- /	# <b>X</b>	\$		
Lunch Program: S	65/ 5-day week (incl. 2x	(Pizza)	# <b>x</b>	\$	
Subtotal Supervis	sion Fees: (B)			\$	
	ek	# <b>X</b>	\$		
Pre and Post Cam	ek	# <b>x</b>	\$		
Subtotal Session	rees: (A)			\$	
OG Multisensory	eks)	# <b>X</b>	\$		
Number of 5-day		#X	\$		
Number of 4-day weeks x \$300:			# <b>X</b>	\$	
4 weeks, 45 Minute sessions daily					
Summer OG Multisensory Teaching Option (SMILE): \$ 990.00					
Discounted rate		\$	2565.00		
		-	\$300 per 4 day week (holiday week)		
Fees:			<b>\$375</b> per 5 day week		
Summer SMILE (4 weeks)		Please indicate week numbers: <u>ex. 1,2,3,4</u>			
<ul> <li>□ 7: August 6 – August 9 (4 Days)</li> <li>□ 8: August 12 – August 16</li> </ul>		PYTHON SONIC PI			
, 8			LEGO SPIKE ROBOTICS		
□ <b>5</b> : July 22 – J			CIRCUTS AND AUDIO SYNTHS		
□ <b>4</b> : July 15 – July 19		SCRATCH GAME CREATION			
<ul> <li><b>2</b>: July 2 – July 5 (4 Days)</li> <li><b>3</b>: July 8 – July 12</li> </ul>		LEGO SPIKE ROBOTICS			
<b>1</b> : June 24 – June 28 $2^{-1}$ June 28		CIRCUTS	GAME DEVELOPMENT WITH BLOXELS		

# Media Consent

There are times we photograph or videotape the children participating in camp activities. We will publish some of these pictures (i.e.: newsletters, websites, Facebook, twitter, brochures, newspaper ads, etc.), without naming individual campers. Académie de la Capitale/École internationale Acadecap International School is requesting permission to use photos/videos of your child. Please note that remuneration will not be given for the use of photos/videos.

I give Académie de la Capitale/École internationale Acadecap International School permission to publish pictures of my child

Signature of Parent/Guardian Initial or Sign Date YYYY/MM/DD

# Waiver

I hereby release and forever discharge Académie de la Capitale/École internationale Acadecap International School, its directors, its employees, agents and all persons authorized by it from any claim, damages, action or cause of action or otherwise that may result from either personal injury or property damage suffered by the said child engaging in school activities including field trips provided, however, that the school and its employees and agents exercise reasonable care.

I hereby authorize the administrators, staff and/or excursion supervisor(s) to act on my behalf as my agent(s) to engage medical attention or hospitalization if required on an emergency basis.

Signature of Parent/Guardian

Date YYYY/MM/DD

## **Finances**

Please make cheques to Acadecap International School ASAP to ensure a spot as our camps fill up quickly.

Payment by Interac e-Transfer: <u>finance@acadecap.org</u> (Please indicate child's name in description and use the standard password: acadecapfees)

Please note there are no refunds.