2020-2021 CCA S.T.E.M. Program Schedule

Date	1st Grade Class	2 nd - 3 rd Grade	4 th – 6 th Grade	Coding Class
		Class	Class	-
10/16	Topic: What is	Topic: What is	Topic: What is	Topic: What is a
	S.T.E.M.?	S.T.E.M.?	S.T.E.M.?	computer?
	Key Concepts:	Key Concepts:	Key Concepts:	Key Concepts:
	The definitions and	The definitions and	The definitions and	Binary operations
	importance of	importance of	importance of	and computer
	Science,	Science,	Science,	memory
	Technology,	Technology,	Technology,	A ativity of Campa
	Engineering, and Math	Engineering, and Math	Engineering, and Math	Activity: Game Theorists video:
	IVIAIII	ivialii	IVIALIT	We Built a
	Activity: Kahoot	Activity: Kahoot	Activity: Kahoot	Computer in Mario
	quiz	quiz	quiz	Maker
	Recommended	Recommended	Recommended	Recommended
	Apps: Kahoot app/web browser	Apps: Kahoot app/web browser	Apps: Kahoot app/web browser	Apps: None
10/23	Topic: Simple	Topic: Programing	Topic: Programing	Topic: Operating a
. 0, _0	Machines	a robot	a robot	pc
	Key Concepts:	Key Concepts:	Key Concepts:	Key Concepts:
	The six simple	Communicating	Communicating with robots to	Navigating the
	machines and what they do	with robots to complete a task	complete a task	windows desktop and pc hardware
	lifey do	Complete a task	Complete a task	and portardware
	Activity: None	Activity: Robot	Activity: Robot	Activity: Using a
		teacher	teacher	search engine
	Recommended	D	D	D
	Apps: None	Recommended Apps: None	Recommended Apps: None	Recommended Apps: None
10/30	Topic: Simple	Topic: Building a	Topic: Building a	Topic: Email
. 0, 00	Machines	robot	robot	
				Key Concepts:
	Key Concepts:	Key Concepts:	Key Concepts:	How to use an
	Using levers and the wheel and axle	Following	Following	email
	the wheel and axie	instructions and identifying parts	instructions and identifying parts	Activity: Creating
	Activity: Building	l lagrillyllig parts	laginitying parts	Google accounts
	Lego cars	Activity: Robot	Activity: Robot	for use in the class
		building	building	(note from Mr.
	Recommended			Josh: the email
	Apps: None	Recommended	Recommended	addresses
		Apps: Lego Boost	Apps: Lego Mindstorms	associated with
		App	Controller app	these accounts are linked to my CCA
L			Controller app	mined to my COA

				email and owned by me).
				Recommended Apps: None
11/6	Topic: Simple Machines	Topic: Building a robot	Topic: Building a robot	Topic: Saving files
	Key Concepts: Using gears to make axles faster or slower	Key Concepts: Following instructions and identifying parts	Key Concepts: Following instructions and identifying parts	Key Concepts: File types and storage locations Activity:
	Activity: Testing motorized Lego fans	Activity: Robot building	Activity: Robot building	Brainstorming website names and themes
	Recommended Apps: None	Recommended Apps: Lego Boost App	Recommended Apps: Lego Mindstorms Controller app	Recommended Apps: None
11/13	Topic: Simple Machines	Topic: Building a robot	Topic: Building a robot	Topic: Website domains
	Key Concepts: Lifting with pulleys Activity: Building	Key Concepts: Using motors, sensors, and the robot brain	Key Concepts: Using motors, sensors, and the robot brain	Key Concepts: The purpose and function of domains
	pulleys Recommended	Activity: Robot building	Activity: Robot building	Activity: Claiming a subdomain on Neocities.org
	Apps: None	Recommended Apps: Lego Boost App	Recommended Apps: Lego Mindstorms Controller app	Recommended Apps: None
11/20	Topic: Scientific Method	Topic: Building a robot	Topic: Building a robot	Topic: html code
	Key Concepts: Research and hypothesis	Key Concepts: Using gears to change the	Key Concepts: Using gears to change the	Key Concepts: Basic html commands
	Activity: Creating a hypothesis	direction of axles Activity: Robot building	direction of axles Activity: Robot building	Activity: completing the html tutorial on Neocities.org
	Recommended Apps: None	Recommended Apps: Lego Boost App	Recommended Apps: Lego Mindstorms Controller app	Recommended Apps: None

12/4	Topic: Scientific Method	Topic: Building a robot	Topic : Building a robot	Topic: Website design
	Key Concepts: Experimentation and analysis	Key Concepts: Using levers to control the robots	Key Concepts: Using levers to control the robot	Key Concepts: Basic components of a website
	Activity: Conducting an experiment	Activity: Robot building	Activity: Robot building	Activity: Brainstorm designs for our websites
	Recommended Apps: None	Recommended Apps: Lego Boost App	Recommended Apps: Lego Mindstorms Controller app	Recommended Apps: None
12/11	Topic: Complex Machines	Topic: Building a robot	Topic: Building a robot	Topic: html/css
	Key Concepts: applying two forces at once	Key Concepts: Symmetry and stabilization	Key Concepts: Symmetry and stabilization	Key Concepts: Changing the style and format of a website
	Activity: Designing a complex machine	Activity: Robot building	Activity: Robot building	Activity: Choosing text and background styles
	Recommended Apps: None	Recommended Apps: Lego Boost App	Recommended Apps: Lego Mindstorms Controller app	for our websites Recommended Apps: None
12/18	Topic: Programing a robot	Topic: Programing a robot	Topic: Programing a robot	Topic: html/css
	Key Concepts: Communicating with robots to	Key Concepts: Operation order	Key Concepts: Operation order	Key Concepts: Adding images to websites
	complete a task Activity: Robot	Activity: Robot programing	Activity: Robot programing	Activity: selecting images for our websites
	teacher	Recommended Apps: Lego Boost	Recommended Apps: Lego	Recommended
1/2	Recommended Apps: None	App	Mindstorms Controller app	Apps: None
1/8	Topic: Programing a robot	Topic: Programing a robot	Topic: Programing a robot	Topic: html/css Key Concepts:
	Key Concepts: Operation order	Key Concepts: Using sensors	Key Concepts: Using sensors	Using hyper links
	Activity: Robot programing	Activity: Robot programing	Activity: Robot programing	Activity: adding links to other websites

	Recommended Apps: Lego Boost App	Recommended Apps: Lego Boost App	Recommended Apps: Lego Mindstorms Controller app	Recommended Apps: None
1/15	Topic: Programing a robot	Topic: Programing a robot	Topic: Programing a robot	Topic: Internet safety
	Key Concepts: Using sensors and remote control	Key Concepts: Remote control	Key Concepts: Remote control	Key Concepts: Viruses, malicious websites, and
	Activity: Robot programing	Activity: Robot programing	Activity: Robot programing	hacking Activity: None
	Recommended	Recommended Apps: Lego Boost	Recommended Apps: Lego	Recommended
1/00	Apps: Lego Boost	App	Mindstorms Controller app	Apps: None
1/22	Topic: Robot design	Topic: Robot design	Topic: Robot design	Topic: Internet safety
	Key Concepts: problem solving through design engineering	Key Concepts: problem solving through design engineering	Key Concepts: problem solving through design engineering	Key Concepts: Viruses, malicious websites, and hacking
	Activity: Designing a robot to perform a task	Activity: Designing a robot to perform a task	Activity: Designing a robot to perform a task	Activity: Creating secure passwords
	Recommended Apps: None	Recommended Apps: None	Recommended Apps: None	Recommended Apps: None
1/29	Review/catchup day: The plan for this class is to review the topics covered up to this point; however, I will use this class	Review/catchup day: The plan for this class is to review the topics covered up to this point; however, I will use this class	Review/catchup day: The plan for this class is to review the topics covered up to this point; however, I will use this class	Review/catchup day: The plan for this class is to review the topics covered up to this point; however, I will use this class
	as an extra day to work on			