Unit 1 (Missions 1-5) Python Code By Mission

Mission 2 – Introducing CodeX	
Import codex	`from codex import *`
Display a built-in image	`display.show(pics.HEART)`
All built-in images:	• pics.HEART • pics.HEART_SMALL • pics.MUSIC • pics.HAPPY • pics.SAD • pics.SURPRISED • pics.ASLEEP • pics.TARGET • pics.TSHIRT • pics.PLANE • pics.HOUSE • pics.TIARA • pics.ARROW_N • pics.ARROW_NE • pics.ARROW_E • pics.ARROW_SE • pics.ARROW_S • pics.ARROW_SW • pics.ARROW_W • pics.ARROW_NW
Mission 3 – Light Show	
Turn on ONE pixel (pixels are numbered 0, 1, 2, 3)	`pixels.set(0, GREEN)`
All built-in colors	BLACK, BROWN, RED, ORANGE, YELLOW, GREEN, BLUE, PURPLE, GRAY, WHITE, CYAN, MAGENTA, PINK, LIGHT_GRAY, DARK_GREEN, DARK_BLUE
Import time to use sleep()	`from time import sleep` or `from time import *` (either will work)
Cause a pause or delay in the code	`sleep(1)` (this will pause for 1 second)
Define a variable (assign a value)	`delay = 1` or `color = RED`
Use a variable with sleep()	`sleep(delay)`
Instructions for using the debugger are included in this mission (Objectives 5 & 6)	
Mission 3 Remix	
Clear the display	`display.fill(BLACK)`

Clear a pixel	`pixels.set(0, BLACK)`
Import random module	`from random import randrange`

Assign a random color	`red = randrange(256)`
	`green = randrange(256)`
	`blue = randrange(256)`

Assign color from RGB	`color = (red, green, blue)`
Use color variable	`pixels.set(0, color)`
Mission 4 – Display Games	
Display a word	`display.show("Ahoy")`
Convert number to string	`word = str(number)`
Convert string to number	`number = int(string)`
Display a number	`display.show(str(9))` Can be a literal value (9) `display.show(str(number))` Or a variable (number)

Display more than one line	`display.print("Jack and Jill")`
	`display.print("went up a hill")`
	`display.print("to fetch a pail")` use **print** instead of **show**

If / else statement (branching)	`pressed = True`
	`if pressed:`
	`    pixels.set(0, GREEN)`
	`else:`
	`    pixels.set(0, RED)`
	Look for **:** and the indenting -- very important!

Assign a value to a button press (True or False)	`pressed = buttons.is_pressed(BTN_A)` Checks if currently pressed `pressed = buttons.was_pressed(BTN_B)` Checks if was pressed since last time

Mission 5 – Micro Musician	
Play a built-in audio clip	`audio.mp3("sounds/welcome")`
All built-in audio clips	a.mp3, africa.mp3, b.mp3, bohemia.mp3, button.mp3, codetrek.mp3, codex.mp3, display.mp3, down.mp3, eight.mp3, five.mp3, four.mp3, funk.mp3, led.mp3, left.mp3, mic.mp3, nine.mp3, no.mp3, off.mp3, okay.mp3, on.mp3, one.mp3, power.mp3, right.mp3, roll.mp3, seven.mp3, shire.mp3, six.mp3, techstyle.mp3, ten.mp3, three.mp3, two.mp3, up.mp3, welcome.mp3, yes.mp3, zero.mp3