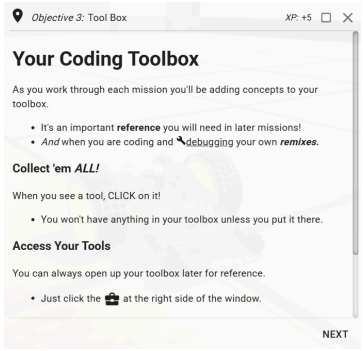
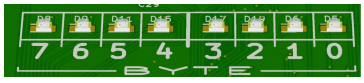
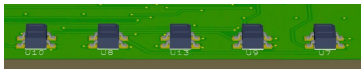
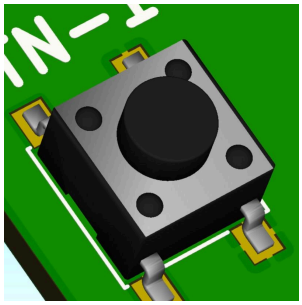
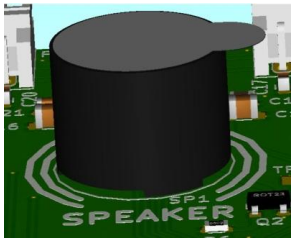
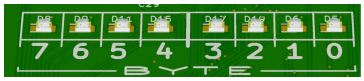
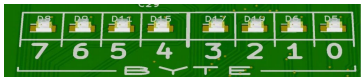
Review Kahoots for Unit 1

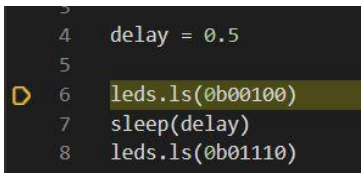
Mission 1 (Introduction to CodeSpace)	
Label the CodeSpace part: Default Program ×	a. CodeTrek b. Log in / log out c. Filename d. Goals
Label the CodeSpace part: 	a. CodeTrek b. Log in / log out c. Run d. Settings
Label the CodeSpace part: Click the tool text above to open the Toolbox and then close the Toolbox.	a. Goals b. Objective Panel c. Filename d. Toolbox
Label the CodeSpace part: 	a. Goals b. Objective Panel c. Filename d. Toolbox
Label the CodeSpace part: 	a. Console panel b. Sandbox c. Hints d. Toolbox
Label the CodeSpace part: 	a. Console panel b. Sandbox c. Hints d. Toolbox
Label the CodeSpace part: 	a. Console panel b. Sandbox c. Hints d. Toolbox

Label the CodeSpace part: 	a. CodeTrek b. Run c. Hints d. Toolbox
Label the CodeSpace part: 	a. Goals b. Run c. Hints d. CodeTrek
Label the CodeSpace part: 	a. Goals b. Run c. Hints d. CodeTrek
Mission 2 Obj. 1-5 (Introduction to CodeBot)	
What is the definition of “CODEBOT”?	a. The “brain” of the computer that executes code b. A 3D environment that lets you see the robot move in a virtual world c. A device that gives input or output to a computer **d. A computer on wheels with built-in sensors**
What is the definition of “PERIPHERAL”?	a) The “brain” of the computer that executes code b) A 3D environment that lets you see the robot move in a virtual world **c) A device that gives input or output to a computer** d) A computer on wheels with built-in sensors
What should you do before handling the CodeBot?	a) Clean it with wet wipes b) Rub your feet on carpet **c) Touch some grounded metal** d) Put in batteries
Which peripheral is used for input?	a. User LEDs b. Speaker **c. Line sensors** d. Motors
Which peripheral is used for output?	**a. Line sensor LEDs** b. Accelerometer c. Proximity sensors d. Push buttons
Identify the part of CodeBot: 	**a. User LEDs** b. Line sensor LEDs c. Push button d. Line sensors
Identify the part of CodeBot:	a. User LEDs **b. Line sensor LEDs** c. Push button

	d. Line sensors
Identify the part of CodeBot: 	a. User LEDs b. Line sensor LEDs c. Push button **d. Line sensors**
Identify the part of CodeBot: 	a. User LEDs b. Speaker **c. Push button** d. Line sensors
Identify the part of CodeBot: 	a. User LEDs **b. Speaker** c. Push button d. Line sensors
Mission 2 Obj. 6-10 (Introduction to CodeBot)	
What is the computer science definition of “CODE”?	**a) Instructions to the computer** b) A way to encode messages c) Problems in a program that need to be fixed d) A computer on wheels with built-in sensors
What is the computer science definition of “IMPORT”?	a) Instructions to the computer **b) A command that provides access to a library of pre-defined functions** c) Devices that give input or output to a computer d) A computer on wheels with built-in sensors
What lets your computer communicate with the CodeBot?	a) Peripherals b) The motors c) import botcore **d) The USB cable**
How often is your program file saved?	a. Only when you click “save” b. Automatically, every 5 minutes **c. Automatically, all the time** d. When you log out

Python is case sensitive. This means:	a) "Number" is the same as "number" **b) "Number" is not the same as "number"** c) Punctuation is important d) Spaces can be used in a function name
What code will let you access the LEDs function?	a) from botcore b) import leds **c) from botcore import leds** d) from botcore access leds
What code will turn **ON** the far-right user LED? 	**a) leds.user_num(0, True)** b) leds.user_num(7, True) c) leds.user(num_1, True) d) user.leds_num(0, False)
What code will turn **OFF** the far-left user LED? 	a) leds.user_num(0, False) **b) leds.user_num(7, False)** c) leds.user(num_8, False) d) user.leds_num(7, True)
What code will turn **ON** the middle line sensor LED? 	a. leds.user_num(2, True) b. leds.ls_num(1, True) **c. leds.ls_num(2, True)** d. leds.ls_num(3, True)
Boolean values are:	a) On or Off b) 0 or 1 **c) True or False** d) Numbered for leds

Mission 3 Time and Motion (Objectives 1-5)	
What is the computer science definition of "LITERAL"?	a) A name you assign to data **b) An actual value, like 1 or 1.5** c) Something that is exact d) Data that is passed to a function when it is called
What is the computer science definition of "VARIABLE"?	**a) A name you assign to data** b) An actual value, like 1 or 1.5 c) Something that can change d) Data that is passed to a function when it is called
What is the computer science definition of "ARGUMENT"?	a) A name you assign to data b) An actual value, like 1 or 1.5 c) When programmers collaborate **d) Data that is passed to a function when it is called**
When you use the debugger, the line of code that is highlighted:	**a) Will run the next time you press STEP** b) Ran the last time you pressed STEP c) Is currently running d) Will stop the program

	
What does this statement do? `from time import sleep`	**a) Gives you access to the sleep function from the time library** b) Gives you access to the time function from the sleep library c) Is necessary for the program to run d) Allows the code to sleep from time to time

What does the sleep(1.0) command do?
`leds.user_num(0, True)`
`sleep(1.0)`
	a) Turns on the LED for 1 second
	b) Pauses the code for 1 second
	c) Turns off the LED after 1 second
	d) Causes an error

The statement will: `sleep(delay)`	**a) Pause the code for "delay" seconds** b) Define a variable c) Pause the code for "sleep" seconds d) Cause an error
What does this statement do? `sleep(True)`	a) Turn on the LED for 1 second b) Pause the code for 1 second c) Turn off the LED after 1 second **d) Cause an error**

Which line of code defines a variable?
`from time import sleep`
`delay = 1.0`
`leds.user_num(0, True)`
`sleep(delay)`
	a) from time import sleep
	b) delay = 1
	c) leds.user_num(0, True)
	d) sleep(delay)

Which line of code uses a variable as an argument?
`from time import sleep`
`delay = 1.0`
`leds.user_num(0, True)`
`sleep(delay)`
	a) from time import sleep
	b) delay = 1
	c) leds.user_num(0, True)
	d) sleep(delay)

Mission 3 Time and Motion (Objective 6)	
What is the computer science definition of "BINARY"?	a) A choice between two options b) A single binary digit, like 0 or 1 **c) A number system that uses 0s and 1s** d) A group of 8 bits
What is the computer science definition of "BIT"?	a) A choice between two options **b) A single binary digit, like 0 or 1** c) A number system that uses 0s and 1s d) A group of 8 bits

What is the computer science definition of “BYTE”?	a) A choice between two options b) A single binary digit, like 0 or 1 c) A number system that uses 0s and 1s **d) A group of 8 bits**
What Python code is used to turn on all user LEDs at the same time?	**a) leds.user()** b) leds.user_num() c) leds.ls() d) leds.ls_num()
What prefix is needed to use decimal numbers when turning on/off all LEDs at the same time?	a) bi b) 0b c) 0x **d) No prefix is needed**
What prefix is needed to use numbers when turning on/off all LEDs at the same time?	a) bi **b) 0b** c) 0x d) No prefix is needed
What is the binary number in decimal? **1001**	a) 1001 b) 5 **c) 9** d) 17
What is the decimal number in binary? **11**	a) 3 **b) 1011** c) 1101 d) 0111
Which LED does the following code turn ON `leds.ls(0b00100)`	**a) Line sensor LED 2** b) Line sensor LED 1 c) Line sensor LED 3 d) All line sensors except 2
Which LED does the following code turn ON `leds.user(0b00100000)`	a) User LED 2 b) User LED 3 **c) User LED 5** d) User LED 6

Mission 3 Time and Motion (Objectives 7-8)	
What character is used as a wildcard, for “everything”?	A. # **B. *** C. () D. @
What line of code will import all built-in functions from a module or library?	a) `import *` b) `import from botcore *` **c)** `from botcore import *`

	d) `from botcore`
What does this code do? `delay = 1`	a) Sets the sleep to 1 b) Pauses the program execution for 1 second c) Puts the CodeBot to sleep for 1 second d) Assigns the value 1 to the variable “delay”
What does this code do? `sleep(delay)`	a) Assigns the variable “sleep” the value “delay” **b) Pauses the program execution for “delay seconds** c) Puts CodeBot to sleep for “delay” seconds d) Causes an error
What line of code will turn on the motors?	a) **motors.enable(True)** c) enable.motors(False) b) motors.on(True) d) motors.turn_on()
What line of code will turn off the motors?	a) disable.motors(True) **c) motors.enable(False)** b) motors.on(False) d) motors.turn_off()

What will this code do?
`motors.run(LEFT, 35)`
`motors.run(RIGHT, -35)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn clockwise (to the right)
	c) Make the ‘bot go backward
	d) Make the ‘bot turn counterclockwise (to the left)

What will this code do?
`motors.run(LEFT, -35)`
`motors.run(RIGHT, 35)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn clockwise (to the right)
	c) Make the ‘bot go backward
	d) Make the ‘bot turn counterclockwise (to the left)

What will this code do?
`motors.run(LEFT, 30)`
`motors.run(RIGHT, 30)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn clockwise (to the right)
	c) Make the ‘bot go backward
	d) Make the ‘bot turn counterclockwise (to the left)

What will this code do?
`motors.run(LEFT, -30)`
`motors.run(RIGHT, -30)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn clockwise (to the right)
	c) Make the ‘bot go backward
	d) Make the ‘bot turn counterclockwise (to the left)

Mission 3 Time and Motion (Objectives 9-11)	
What is the computer science definition of “ALGORITHM”?	a) Notes in the code that explain what it does b) A way to divide and conquer **c) A list of instructions, in order, for the computer to follow** d) A block of code that is offset four spaces
What is the computer science definition of “COMMENTS”?	**a) Notes in the code that explain what it does** b) A way to divide and conquer c) A list of instructions, in order, for the computer to follow d) A block of code that is offset four spaces

What is the computer science definition of “BRANCHING”?	a) A Boolean value; either True or False **b) Decision points in code; taking a different path depending on a condition** c) A block of code that is offset four spaces d) A list of instructions, in order, for the computer to follow
What is the computer science definition of “CONDITION”?	**a) A Boolean value; either True or False** b) Decision points in code; taking a different path depending on a Boolean c) A block of code that is offset four spaces d) A list of instructions, in order, for the computer to follow

What is the condition of this statement?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
	A. if
	B. buttons.was_pressed(0)
	C. True
	D. motors.enable(True)

What are the possible values of: `buttons.was_pressed(0)`	a) 0 and 1 b) All integers **c) True or False** d) if / elif / else
What are two ways to increase the readability of your code?	a) Algorithms and divide-and-conquer b) Importing libraries and using variables c) Binary and Boolean **d) Comments and blank lines**

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(0, True)`
`elif buttons.was_pressed(1):`
`  leds.user_num(7, True)`
`else:`
`  leds.user(0)`
	a) The user LED 0 turns on
	b) All user LEDs turn off
	c) The user LED 7 turns on
	d) LED 0 turns on, then LED 7 turns on, then they both turn off

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(0, True)`
`elif buttons.was_pressed(1):`
`  leds.user_num(7, True)`
`else:`
`  leds.user(0)`
	a) The user LED 0 turns on
	b) All user LEDs turn off
	c) The user LED 7 turns on
	d) LED 0 turns on, then LED 7 turns on, then they both turn off

What happens if no button was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(0, True)`
`elif buttons.was_pressed(1):`
`  leds.user_num(7, True)`
`else:`
`  leds.user(0)`
	a) The user LED 0 turns on
	b) All user LEDs turn off
	c) The user LED 7 turns on
	d) LED 0 turns on, then LED 7 turns on, then they both turn off

What happens if Button-0 was pressed?	a) The motors are turned off **b) The motors are turned on** c) The motors are turned on and then off

`if buttons.was_pressed(0):`
`  motors.enable(True)`
`else:`
`  motors.enable(False)`
	d) Nothing happens

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`else:`
`  motors.enable(False)`
	a) The motors are turned off
	b) The motors are turned on
	c) The motors are turned on and then off
	d) Nothing happens

What happens if no button was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`else:`
`  motors.enable(False)`
	a) The motors are turned off
	b) The motors are turned on
	c) The motors are turned on and then off
	d) Nothing happens

What happens if Button-0 was pressed?
`if buttons.was_pressed(1):`
`  leds.user(0b11111111)`
	a) All user LEDs turn on
	b) All user LEDs turn off
	c) Nothing happens
	d) All LEDS turn on and then off

What happens if Button-1 was pressed?
`if buttons.was_pressed(1):`
`  leds.user(0b11111111)`
	a) All user LEDs turn on
	b) All user LEDs turn off
	c) Nothing happens
	d) All LEDS turn on and then off

Unit 1 Vocabulary Review/Test (Missions 1-3: All questions are the computer science definition of ...) *(compilation of 13 terms from previous reviews, plus two more terms – same terms for review and test)*	
Peripheral	a) The “brain” of the computer that executes code b) A 3D environment that lets you see the robot move in a virtual world **c) A device that gives input or output to a computer** d) A computer on wheels with built-in sensors
LED	a) The “brain” of the computer that executes code b) A device that gives input to a computer c) A computer on wheels with built-in sensors **d) tiny and efficient electronic components that produce light**
Code	**a) Instructions to the computer** b) A way to encode messages c) Problems in a program that need to be fixed d) A computer on wheels with built-in sensors
Import	a) Instructions to the computer **b) A command that provides access to a module of built-in functions** c) Devices that give input or output to a computer d) A computer on wheels with built-in sensors

CPU	**a) The "brain" of the computer that executes code** b) A device that gives input to a computer c) A computer on wheels with built-in sensors d) tiny and efficient electronic components that produce light
Literal	a) A name to data that can then be used in a program **b) An actual value, like 1 or 1.5** c) Something that is exact d) Data that is passed to a function when it is called
Variable	**a) A name to data that can then be used in a program** b) An actual value, like 1 or 1.5 c) Something that can change d) Data that is passed to a function when it is called
Argument	a) A name to data that can then be used in a program b) An actual value, like 1 or 1.5 c) When programmers collaborate **d) Data that is passed to a function when it is called**
Boolean	a) On or Off b) 0 or 1 **c) True or False** d) Numbered for leds
Binary	a) A choice between two options b) A way to count with numbers **c) The two states of electric circuits: On or Off** d) A group of 8 bits, used in programming
Byte	**a) A group of 8 binary digits** b) A way to count with numbers c) The two states of electric circuits: On or Off d) Chunking programming code into smaller parts
Comments	**a) Notes in the code about what you are doing** b) Feedback from another programmer c) Required statements at the top of your code d) Imports the modules so you can use built-in functions
Algorithm	a) Adding blank lines and spaces to your code b) Chunking your code into bite-sized pieces **c) A precise sequence of step-by-step instructions** d) Accessing built-in functions
Branching	a) A Boolean value; either True or False, often the result of a comparison **b) Decision points in code; taking a different path depending on a condition** c) A way to structure blocks of code by offsetting the block four spaces d) A precise sequence of step-by-step instructions
Condition	**a) A Boolean value; either True or False, often the result of a comparison** b) Decision points in code; taking a different path depending on a Boolean c) A way to structure blocks of code by offsetting the block four spaces d) A precise sequence of step-by-step instructions

Unit 1 Concepts and Coding Test (Missions 1-3) / *(review questions with modifications)*	
Python is case sensitive. This means:	a) Capitalization doesn't matter b) Punctuation isn't important c) "Delay" is the same as "delay" **d) "Delay" is not the same as "delay"**
What are two ways to add readability to your code:	a) **Comments and whitespace** b) Algorithms and divide-and-conquer c) Binary and Boolean d) Importing modules and using variables
What line of code will import all built-in functions from a module or library?	a) `from botcore` **b)** `import from botcore *` c) `from botcore import *` d) `import *`
What code will turn on the far-left user LED?	a) leds.user_num(0, True) **b) leds.user_num(7, True)** c) leds.user(num_8, True) d) user.leds_num(7, True)
What code will turn off the far-right user LED?	**a) leds.user_num(0, False)** b) leds.user_num(1, False) c) leds.user(num_8, False) d) user.leds_num(7, False)
This statement will: `sleep(1.25)`	a) Cause an error b) Pause the program for 1.25 milliseconds **c) Pause the program for 1.25 seconds** d) Turn on the LED for 1.25 seconds
Which LED does the following code turn ON: `leds.user(0b00001000)`	a) User LED 2 **b) User LED 3** c) User LED 4 d) User LED 5
What does this code do? `delay = 0.25`	a) Pauses the program execution for 0.25 seconds b) Sets the sleep to 0.25 c) Puts the CodeBot to sleep for 0.25 seconds **d) Assigns the value 0.25 to the variable "delay"**
What does this code do? `sleep(delay)`	a) Puts CodeBot to sleep for "delay" seconds b) Assigns the value "delay" to the variable "sleep" **c) Pauses the program execution for "delay" seconds** d) Causes an error
What code will turn on the motors?	a) enable.motors(True) b) motors.turn_on() c) **motors.enable(True)** d) motors.on(True)
What code will turn off the	a) **motors.enable(False)**

motors	b) motors.turn_off() c) motors.on(False) d) disable.motors(True)

What will this code do?
`motors.run(LEFT, -50)`
`motors.run(RIGHT, -50)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn
	c) Make the ‘bot go backward
	d) Cause the ‘bot to stop

What will this code do?
`motors.run(LEFT, -50)`
`motors.run(RIGHT, 50)`
	a) Move the ‘bot forward
	b) Make the ‘bot turn
	c) Make the ‘bot go backward
	d) Cause the ‘bot to stop

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`elif buttons.was_pressed(1):`
`  motors.enable(False)`
`else:`
`  motors.run(LEFT, 50)`
`  motors.run(RIGHT, 50)`
	a) The ‘bot moves forward
	b) The motors are turned off
	c) The motors are turned on
	d) The motors are turned on, the ‘bot moves forward, and then the motors are turned off

What happens if Button-1 was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`elif buttons.was_pressed(1):`
`  motors.enable(False)`
`else:`
`  motors.run(LEFT, 50)`
`  motors.run(RIGHT, 50)`
	a) The ‘bot moves forward
	b) The motors are turned off
	c) The motors are turned on
	d) The motors are turned on, the ‘bot moves forward, and then the motors are turned off

What happens if no button was pressed?
`if buttons.was_pressed(0):`
`  motors.enable(True)`
`elif buttons.was_pressed(1):`
`  motors.enable(False)`
`else:`
`  motors.run(LEFT, 50)`
`  motors.run(RIGHT, 50)`
	a) The ‘bot moves forward
	b) The motors are turned off
	c) The motors are turned on
	d) The motors are turned on, the ‘bot moves forward, and then the motors are turned off

What happens if Button-0 was pressed?
`if buttons.was_pressed(0):`
`  leds.user_num(3, True)`
`  sleep(1)`
`  leds.user_num(3, False)`
	a) A user LED turns on
	b) A user LED turns on and then turns off
	c) A user LED turns off
	d) Nothing happens

What happens if Button-1 was pressed?	a) A user LED turns on b) A user LED turns on and then turns off

``
if buttons.was_pressed(0):
    leds.user_num(3, True)
    sleep(1)
    leds.user_num(3, False)
``
	c) A user LED turns off
	d) Nothing happens

What happens if Button-1 was pressed?
``
if buttons.was_pressed(1):
    leds.ls(0b11111)
    leds.user(0b00000000)
else:
    leds.ls(0b00000)
    leds.user(0b11111111)
``
	a) Line sensor LEDs are turned on and user LEDs are turned off
	b) User LEDs are turned on and line sensor LEDs are turned off
	c) User LEDs and line sensor LEDs are turned on and then off
	d) Nothing happens

What happens if no button was pressed?
``
if buttons.was_pressed(1):
    leds.ls(0b11111)
    leds.user(0b00000000)
else:
    leds.ls(0b00000)
    leds.user(0b11111111)
``
	a) Line sensor LEDs are turned on and user LEDs are turned off
	b) User LEDs are turned on and line sensor LEDs are turned off
	c) User LEDs and line sensor LEDs are turned on and then off
	d) Nothing happens