Coding Workbook

Advanced

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Calgary Public Library

Activity One

Stage 6: Bee: Functions   ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪
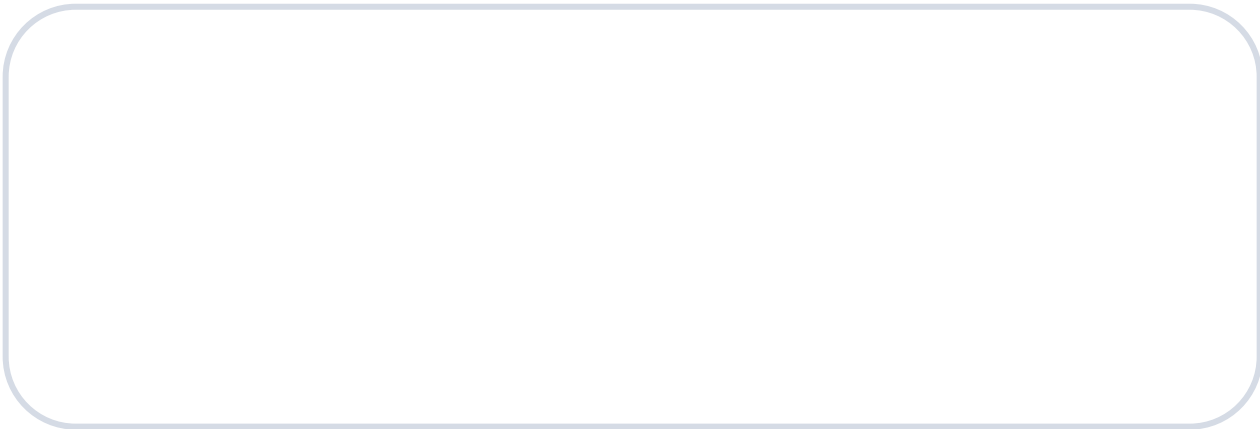
- Learn about functions: how to define your own set of instructions that can be used in a program.
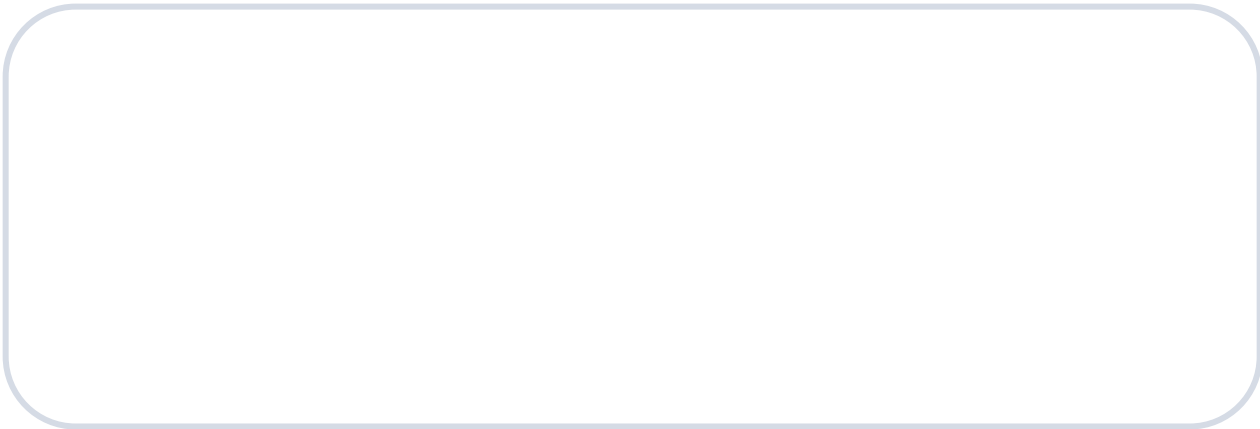
Vocabulary Words

- **Function:** a piece of code that you can easily call over and over again.

Today I Learned… (write or draw about something you learned today)

I Really Liked… (write or draw about something you enjoyed today)

Activity Two

Today's Module

http://studio.code.org/s/course3/stage/11/puzzle/1

Stage 11: Artist: Nested Loops (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

- Learn how to nest loops: repeat a set of instructions that includes a repeat loop.
- Once again, you're practising pattern matching.

Vocabulary Word

- **Loop:** the action of doing something over and over again.
- **Pattern Matching:** Finding similarities between things.

Today I Learned... (write or draw about something you learned today)

I Really Liked... (write or draw about something you enjoyed today)

Activity Three

Stage 12: Farmer: While Loops ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

- Today's activity is about a different kind of loop: while loops.
- When you use a while loop, the action continues for as long as the statement is true.

Vocabulary Words

- **Conditionals:** Statements that only run under certain conditions or situations.
- **Loop:** the action of doing something over and over again.

Today I Learned... (write or draw about something you learned today)

I Really Liked... (write or draw about something you enjoyed today)

Activity Four

Today's Module

| Stage 6: Artist: Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

- Learn about variables, an important part of coding.
- You are also working on the skills of pattern matching and abstraction.

Vocabulary Words

- **Abstraction:** Pulling out specific differences to make one solution work for multiple problems.
- **Variable:** A placeholder for a piece of information that can change.

Today I Learned... (write or draw about something you learned today)

I Really Liked... (write or draw about something you enjoyed today)

Activity Five

Today's Module

Stage 14: Artist: Functions with Parameters
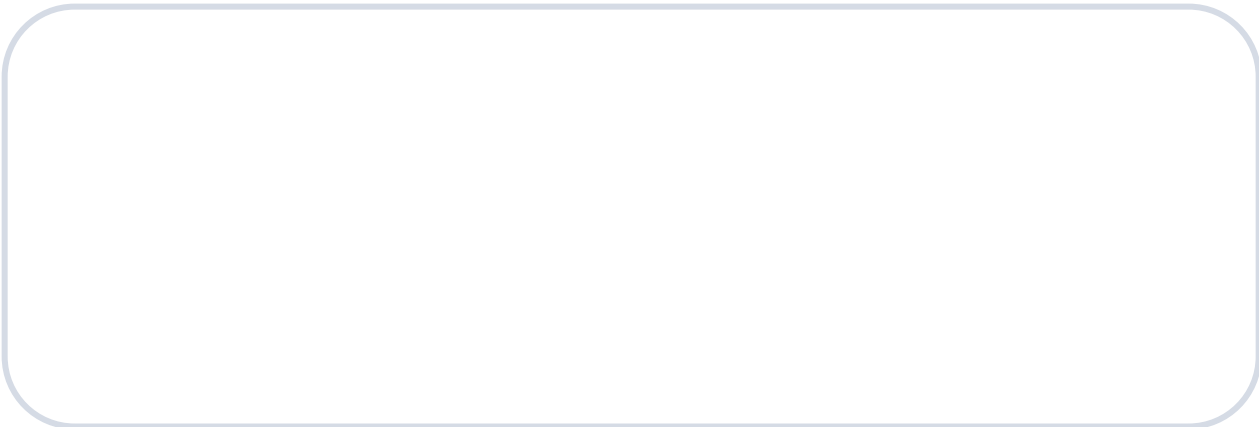
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰

- Learn how to use parameters with your functions to create more useful programs.
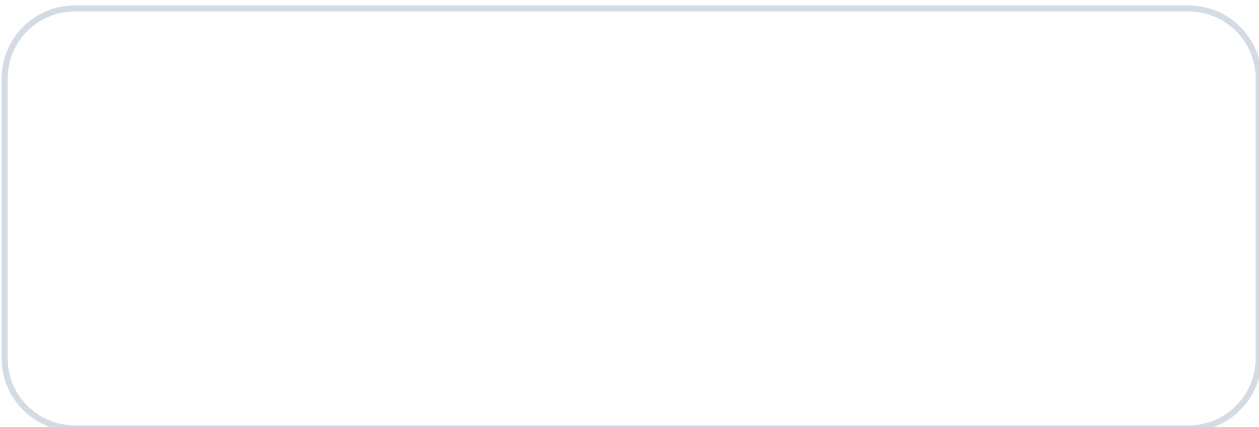
Vocabulary Words

- **Function:** a piece of code that you can easily call over and over again.
- **Parameter**: An extra piece of information that you pass to the function to customize it for a specific need.

Today I Learned... (write or draw about something you learned today)

I Really Liked... (write or draw about something you enjoyed today)

Activity Six

Today's Module

http://studio.code.org/s/course4/stage/15/puzzle/1

Stage 15: Play Lab: Functions with Parameters (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)

- Practise everything you learned by creating your own original game!
- When you're done, share the link with your family and friends so they can play the game you created.

The link for your game is: (write it out carefully)

Today I Learned... (write or draw about something you learned today)

I Really Liked... (write or draw about something you enjoyed today)