Lesson 1.7: Assessment Exercises

Objectives

After completing this lesson, students will:

- Have an understanding of how much they learned and understood during Unit 1

Agenda

1. Student Activity	30 mins
2. Review Activity Solutions and Wrap Up	20 mins

Preparation

- ❑ Print student activity worksheet (one per student)

Resources & Links

- ❑ None

1. Student Activity: Assessment Puzzles

Distribute one worksheet per student. This is an assessment activity for material covered in Unit 1. Explain the activity to students. Leave enough time at the end to go over the answers.

2. Review Activity Answers

Engage students in an interactive discussion and review of the answers to each of the exercises.

Solution to Student Activity:

1. Check everything that is true about computer programs;

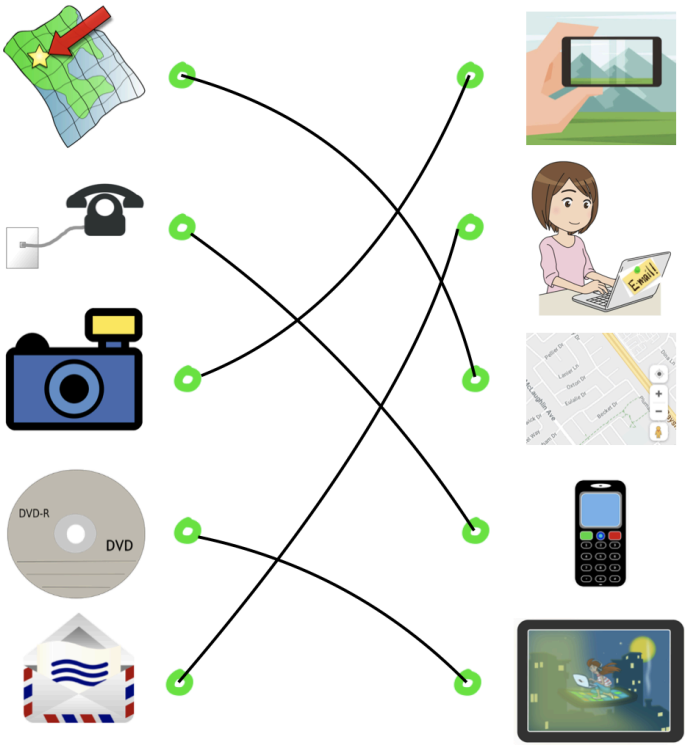
   ✅ They are stored as bits of 0s and 1s
   ✅ They are written in programming languages the computer can interpret
   ❑ They can't be longer than 1 million instructions
   ✅ They tell the computer what to do

2. Circle all items that are an **input device**:

3. The CPU's job is to fetch and run instructions and is most like the computer's lungs.

   False Explanation: While it is true that the CPU fetches and runs instructions, the CPU is most like the computer's brain.

4. Draw a line connecting the old way of doing things to the new way today



5. To debug means:
   a. Wipe bugs off a computer screen
   b. Run a test case
   c. Write a program with no bugs
   ✅d. Find and remove problems in a program

6. When one sprite wants to send other sprites a message, it _____ a message. (Fill in the missing word).

   Broadcasts

7. Computers often need to search for a single item in a set of data. There are many search algorithms.

   When a program first sorts the data and then checks the middle of the list to check which half the item is in and repeats this until the item is found it is called:

a. Linear search
b. Hashing search
✅ c. Binary search
d. Middle search
e. It has no name

8. The linear search is the fastest searching algorithm for lots of data because you don't have to sort the data first.

False

The hashing algorithm would be the fastest.

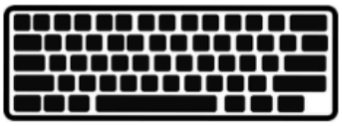
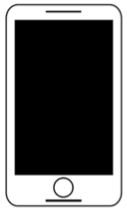
Student Activity: Check Your Knowledge

1. Check everything that is true about computer programs;

   - ❑ They are stored as bits of 0s and 1s
   - ❑ They are written in programming languages the computer can interpret
   - ❑ They can't be longer than 1 million instructions
   - ❑ They tell the computer what to do

2. Circle all items that are an **input device**:



camera

smartphone

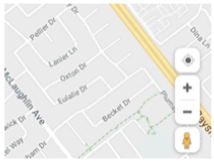
3. The CPU's job is to fetch and run instructions and is most like the computer's lungs.

   - ❑ True
   - ❑ False

4. Draw a line connecting the old way of doing things to the new way today










5. To debug means:

   a. Wipe bugs off a computer screen

   b. Write code with bugs in it

   c. Write a program with no bugs

   d. Find and remove problems in a program

6. When one sprite wants to send other sprites a message, it

   _____ a message. (Fill in the missing word).

7. Computers often need to search for a single item in a set of data. There are many search algorithms.

   When a program first sorts the data and then checks the middle of the list to check which half the item is in and repeats this until the item is found it is called:

   e. Linear search
   f. Hashing search
   g. Binary search
   h. Middle search
   i. It has no name

8. The linear search is the fastest searching algorithm for lots of data because you don't have to sort the data first.

   ❑ True
   ❑ False