Pattern Recognition Activity Guide

Mission 4: Language Logic, Objective 2

Name:

The activity for this objective is to use a basic search algorithm to see if a typed word contains any consecutive repeated letters.

- Students can work individually or with a partner for this activity.

1. Start a new file and call it **repeated_letters**	☐ File created
2. Follow CodeTrek to: • Add code to the function **find_repeating_letters()** • Add code to the function **print_word()** • Call the functions in the Main Program **NOTE:** *When adding code, be very careful with the indenting, spelling and punctuation!*	☐ CodeTrek followed
3. Open the **Console** by clicking the "Open Console" icon  (The console icon is just below the Toolbox icon.)	☐ Console Panel opened
4. Run the code. • Read the instructions on CodeX. • Type a word in the Console. • Observe the results on CodeX.	☐ Run the code
5. Record the results for at least 5 words.	☐ Results recorded

Program Results:

Word that was searched:	Your observation: Are there repeated letters? (Y/N)	Computer result: Are there repeated letters? (Y/N)

6. Write a reflection of this activity on the next page.

Reflection: Think about how you searched the words to see if they had consecutive repeated letters. Summarize your algorithm:

Reflection: Review the process a computer uses to detect consecutive repeated letters. Summarize the basic search algorithm:

Reflection: Compare and contrast the two algorithms. What do they have in common? How are they different? Which one do you think is faster for short words? For long words or phrases?