Language Patterns Activity Guide

Mission 4: Language Logic, Objective 4

Name:

The activity for this objective is to record a word and detect the syllables using a searching algorithm.

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

1. Go to ***File → Browse Files...*** and open the file called **BRN_syllables**	☐ File opened
2. Go to ***File → Save As*** and rename the file **syllables**	☐ File saved as **syllables**
3. Follow CodeTrek to: • Customize the code by assigning values for constants THRESH and MIN_GAP. • Program the buttons for recording, playback and quitting the program. **NOTE:** *When adding code, be very careful with the indenting, spelling and punctuation!*	☐ CodeTrek followed
4. Run the code. • Read the instructions on CodeX • Press BTN_A to record a word – you have 1 second • Press BTN_B to play back the word • Press BTN_U to process the word and display the graph • Record the results in the table on the next page • Repeat several times	☐ Run the code
5. If you are not getting the correct number of syllables, adjust the values of the constants. • Look at the graph. If the peaks are falling between the red lines, you either need to speak louder or make the THRESH smaller (or both). • If the peaks are above the red line, but syllables are not counted, adjust the MIN_GAP smaller.	☐ Adjust values of constants for correct results
6. Record the results of several words on the chart below. • The chart has room for 10 words	☐ Observations recorded

Word recorded	Actual syllables	Detected syllables	THRESHOLD	MIN_GAP

Word recorded	Actual syllables	Detected syllables	THRESHOLD	MIN_GAP

7. Write a reflection of this activity. Think about the three pattern detection activities (repeated letters, patterns in a grid, and syllables). How are they similar? How are they different?

8. How do you think human brains detect patterns, either in written words, spoken words, or images? How is it similar or different to the algorithms a computer uses?