**A close up of a sign

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**Wildcat Code**

HOT POTATO

## Learning Topics:

Variables

Logic Statements

If Then, Else Statements

Math Statements

Loops, While Loops

## Materials:

Micro:bit

Computer

Internet Access

## Introduction:

In this game, you will start a timer with a random countdown of a number of seconds. Whe the timer is off; the game is over and whoever is holding the potato has lost!

Before starting with the activity, have students answer the introduction questions below:

* Does anyone remember what the shake sensor on the Micro:bit is called? A: Accelerometer

## Vocab:

Next, let’s discuss some Micro:bit and computer science terminology:

*Program –* An algorithm that has been coded into something that can be run by a machine.

*If, then, else Statements* – Compares two or more sets of data and test them for a result. If results are true, then do (what you make the program do if results are true), else do (what you make the program do if results are false).

*Variable* – A value that can be changed and stores information that can be accessed.

*Bug –* Part of a program that does not work correctly.

*Debugging –* Finding and fixing errors in a program.

*Sequencing –* The order in which a computer executes commands.

## Instructional Content:

Let’s get started! First, click or type the following link “https://makecode.microbit.org/” which will take you to today’s activity on the Micro:bit website.

Review both the Micro:bits and the MakeCode tool with students if needed.

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Once students have their MakeCode program loaded, have students click on “**New Project**”. Name the project “Hot Potato”.

**STEP 1**

Add an event to run code when button A is pressed

Text

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**STEP 2**

Make a timer variable and set it to a random value between 5 and 15

The value of **timer** represents the number o seconds left before someone is aught holding the potato.

Graphical user interface, text, application, chat or text message

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**STEP 3**

Add code to **show** that the game started

Graphical user interface, application

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**STEP 4**

Put in a loop repeat code **while timer is positive.** When timer is negative, the game is over.

Graphical user interface, application

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**STEP 6**

After the while loop is done, add code to sow that the game is over.

Graphical user interface, application

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## Learning outcomes:

By completing this activity, you will learn:

* Variables
* Logic Statements
* Loops

## Closure:

Reflect with students on the following questions:

* How could you modify the program to make it your own? What changes would you make?

## References:

Micro:bit Makecode. (n.d.). Retrieved September 16, 2021, from <https://makecode.microbit.org/>