Elective Virtual Learning

# 6th Grade Intro to Gateways

## Intro to Cryptology Through Micro:bit

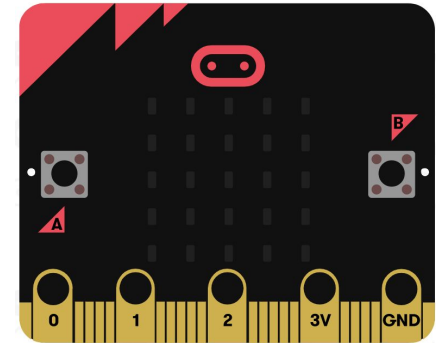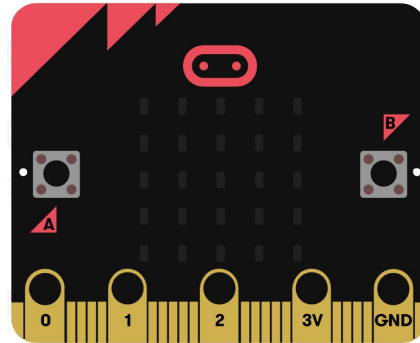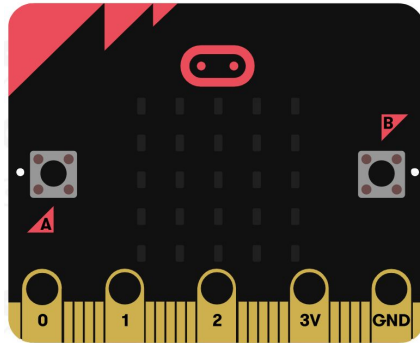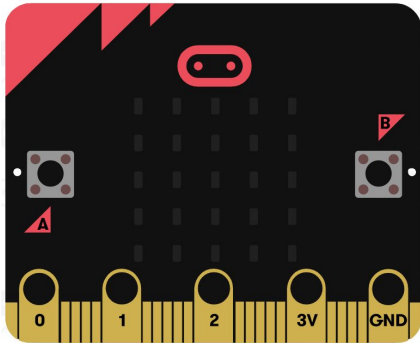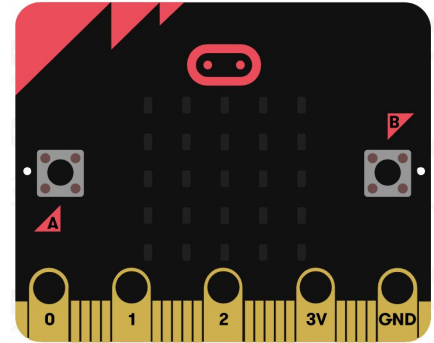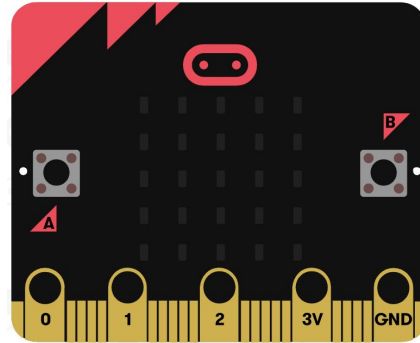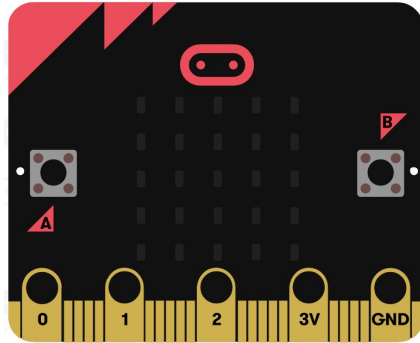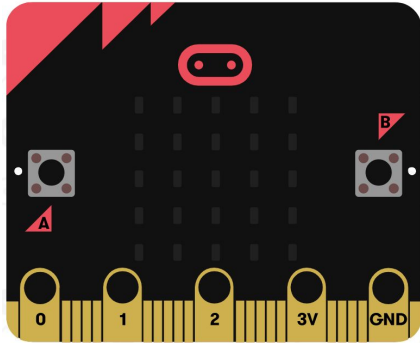May 21, 2020

7th & 8th Grade Multimedia
Lesson: May 21, 2020

**Objective/Learning Target:
I can code a Virtual Micro:Bit**
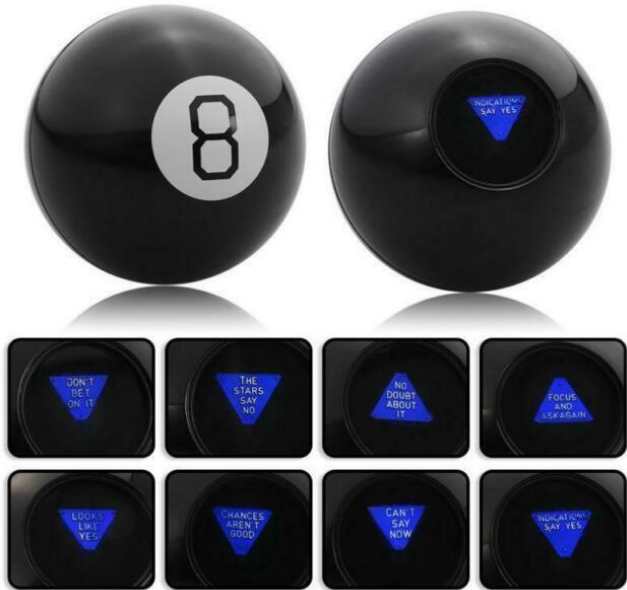
# Warm-Up

## Quick Draw

What other random number games could you code? What would the choices be? Draw what each choice would look like below.

# Lesson Introduction/Background Information:

## Have you ever seen a Magic 8 Ball?

The Magic 8 Ball was invented in 1950 and was not digital. Even though it is low-tech, it is still popular today and is manufactured by Mattel.

It is based on generating a random response just like the the dice in the previous lesson and the random number in today's practice. However instead of being computerized, it is an icosahedron die (20 faces), floating in blue liquid, so that when it is shaken it randomly pops up an answer to a yes or no question.
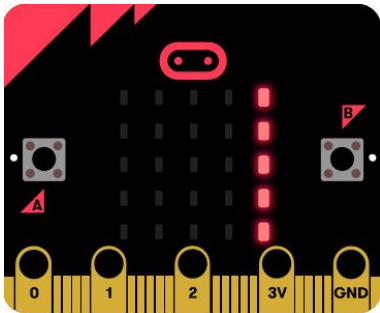
Today's you will use text and a random number genorator to make a Love Meter!
Of course you can call it any kind of meter you want!

# Practice:

Today you will be creating the Code for To make your name scroll in the LED window let's get started.

1. Make sure you are in [MakeCode](MakeCode)
2. CLICK on the Love Meter Image   --------->
1. CLICK on Start Tutorial
2. Follow the 7 steps
3. Name & Download your code.

Love Meter

WIth a Physical micro:bit you would touch the pin with your hands, which would take your "meter" rating. You could also alter this using the temperature meter with more advanced coding.

Remember!
You can fully code this and try it out on your chromebook or device!

Instead of downloading, you can name it and it will save for the next time you want to see your project

oad     Name it here!

# Continued Practice:

From your warm up exercise, try to make a plan to code your idea. Test it to see if it works.

What would happen if you had a random number = a statement? How could you code the micro:bit to generate a number that equaled an answer like the magic 8 ball. What new code blocks would you use?

# Self-Assessment:
- ❏ What did you create? Share it with someone in your house
- ❏ Feel free to download and share the code with me and I will send you a video of it in action on the physical micro:bit