Music Blocks Lesson Plan
Input

Age:

7-12 years

Lesson duration:

60 minutes

- Introduction: Can we tell our program what to do? (15m)
- Part 1: Input (20m)
- Break (5m)
- Part 2: Enhancements (15m)
- Performance/Critique (10m)

Number of students:

Up to 10.

Rationale:

Students will learn about different approaches to input to their programs.

Objectives:

Students will understand how to use the Input block.

LESSON

Introduction: Can we tell our program what to do?

Sit in a circle and discuss the various ways we can communicate to a computer. Sensors: microphone, keyboard, mouse, etc. Are there any others? What would be a fun extension to Music Blocks?

Discuss how keyboard input might be useful in modifying the behavior of a program and introduce the Input block as the focus of today's lesson.

Part 1: Using the Input block.

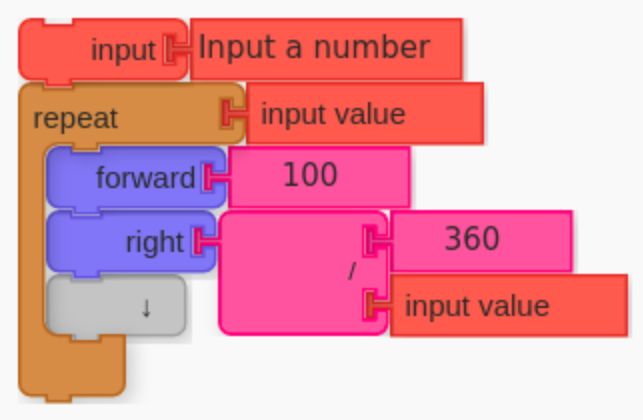
A. Observe that there are two blocks associated with input on the Sensor palette.

The Input block is used to prompt the user to type some text or numbers. It opens a box for typing at the position of the mouse. Your program will pause while it waits for you to type.

Don’t forget to hit the Enter key after you finish typing.

The Input value block holds the text that was typed. You can use it like any text or number block.

B. A simple example.



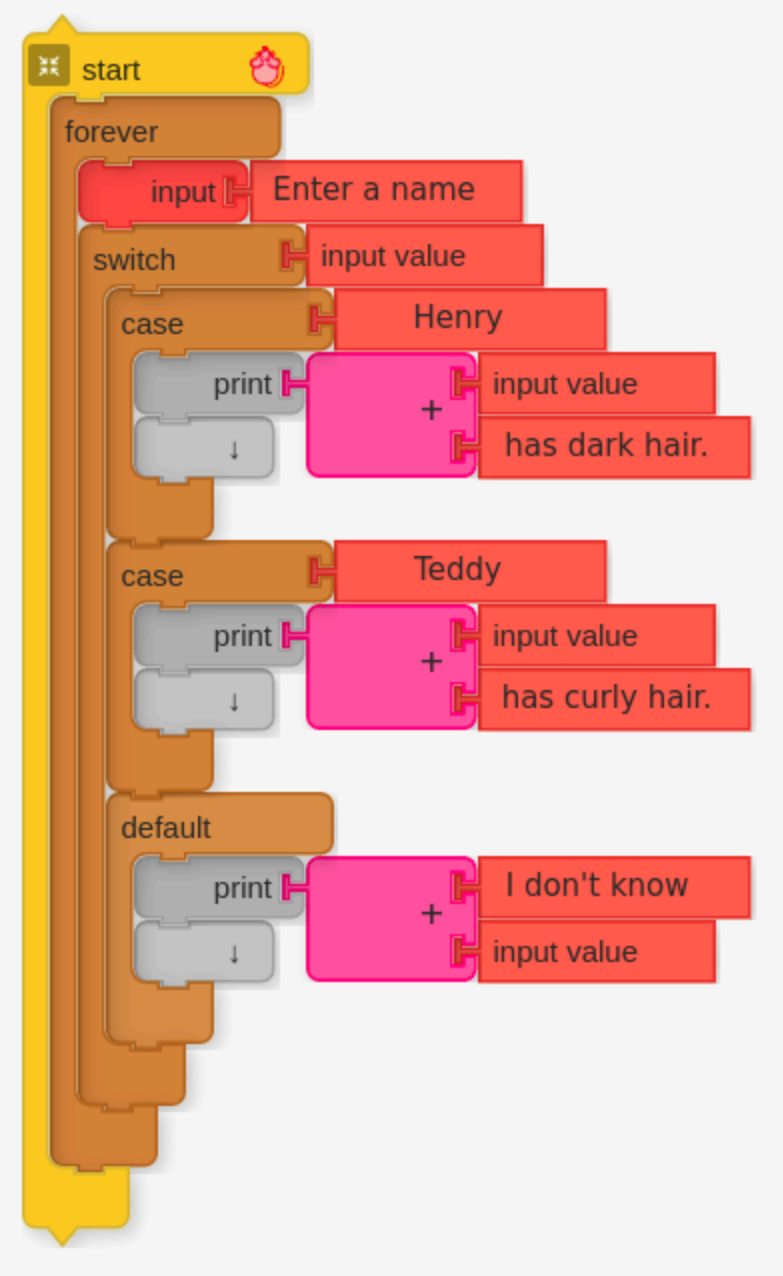
This program asks for a number and then draws a polygon with that number of sides.

C. Try experimenting with Input and Input value.

Break

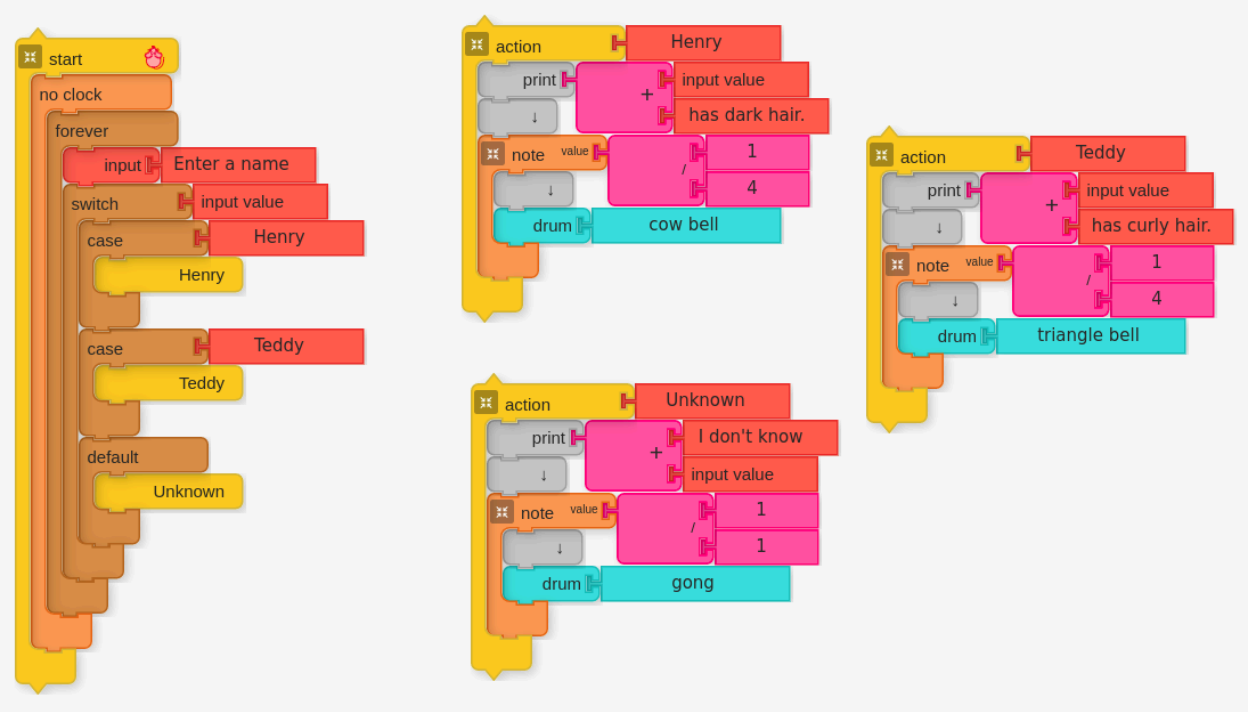
Part 2: Enhancements

A. We can use Input value to decide which case to run in a switch statement.



B. Try experimenting on your own. Add custom music and graphics (and perhaps an avatar) in each case of your switch statement.

   Note: Because your program pauses each time it waits for input, you will probably need to use a No Clock block (from the Meter palette).



Performance/Critique:

1. Have each student talk how they used Input.
2. Engage in a discussion about their different approaches.

Key events:

- Introduction of key concepts: Input, interaction.

Materials:

- Music Blocks software

Assessment:

- Observe participation.
- Does the program perform as expected?