

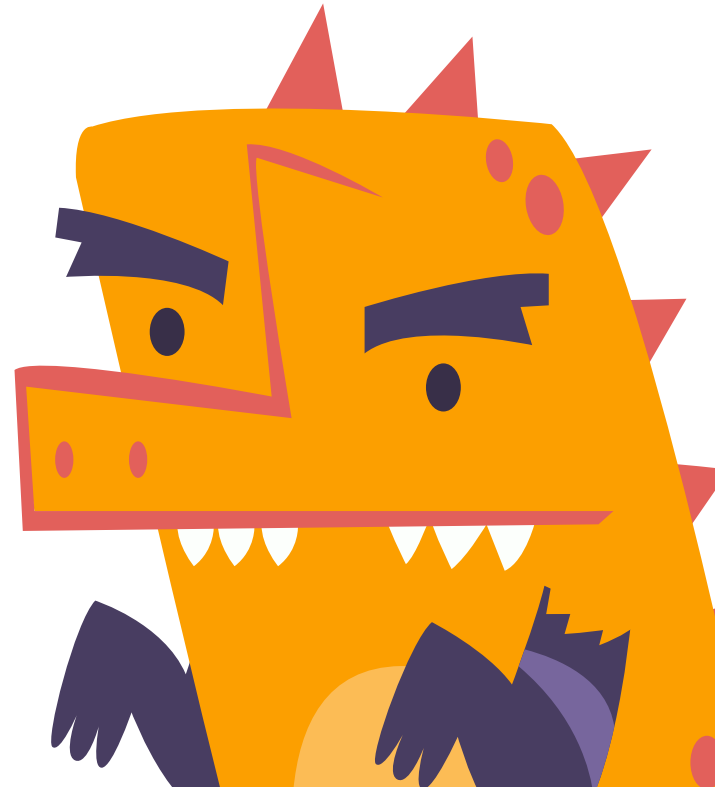
HOPSCOTCH

LESSON FIVE

# Events: Cause and Effect



Sometimes in computer science you need to associate some blocks of code with a specific event.



You can think of this process as  
when...then:

**When a certain event happens,  
Then I will run a block of code**



FOR EXAMPLE

**When** you hit the phone icon on your home screen, **then** your phone brings up the interface to make calls.



FOR EXAMPLE

**When** you press the "A" button, **then** Mario jumps, no matter where he is.

FOR EXAMPLE

**When** the bird hits a block,  
**then** the block falls down.



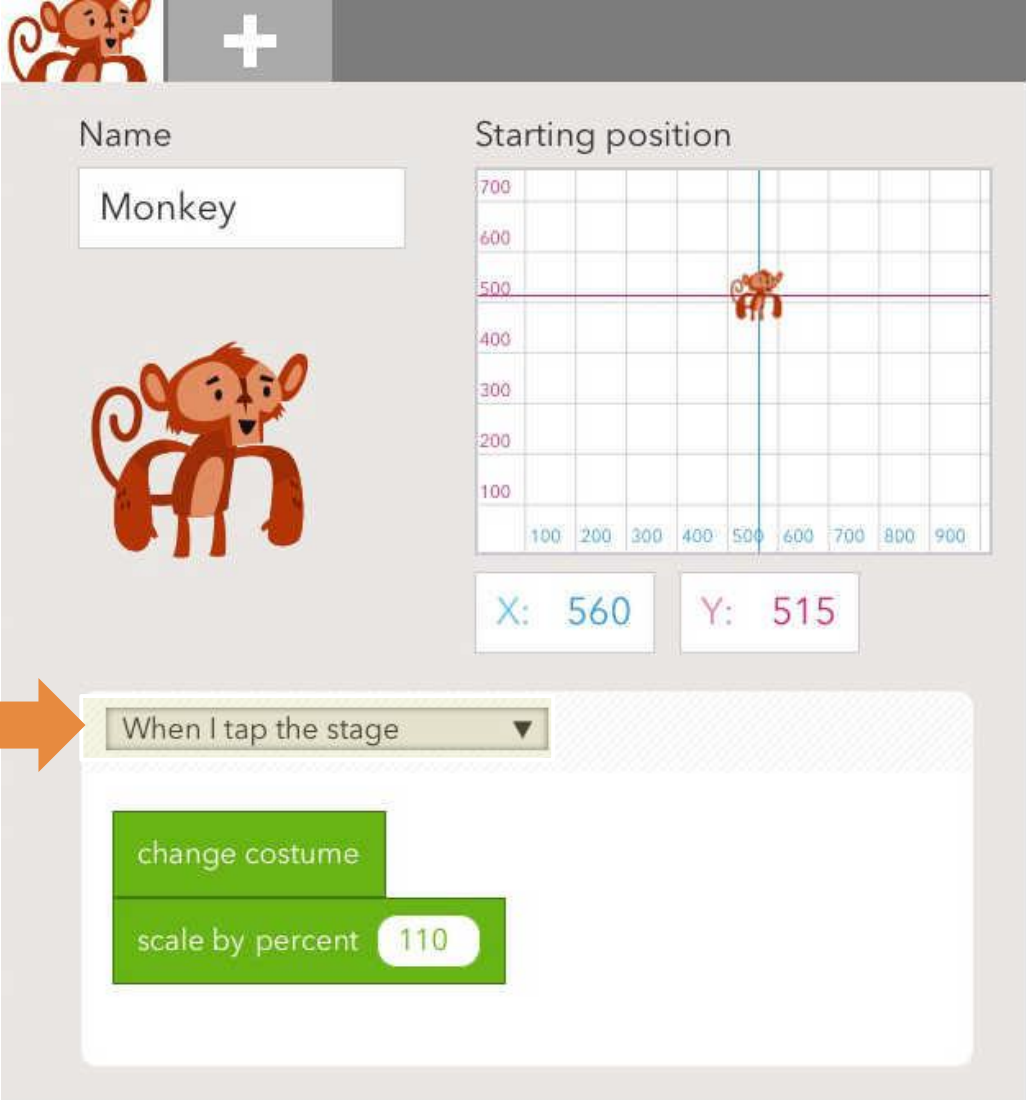
Wouldn't it be great if you could associate some blocks of code with an event, so every time that event happens your code will run?

**You can!**

**It's called an Event  
Handler.**



Take this  
event for  
example:



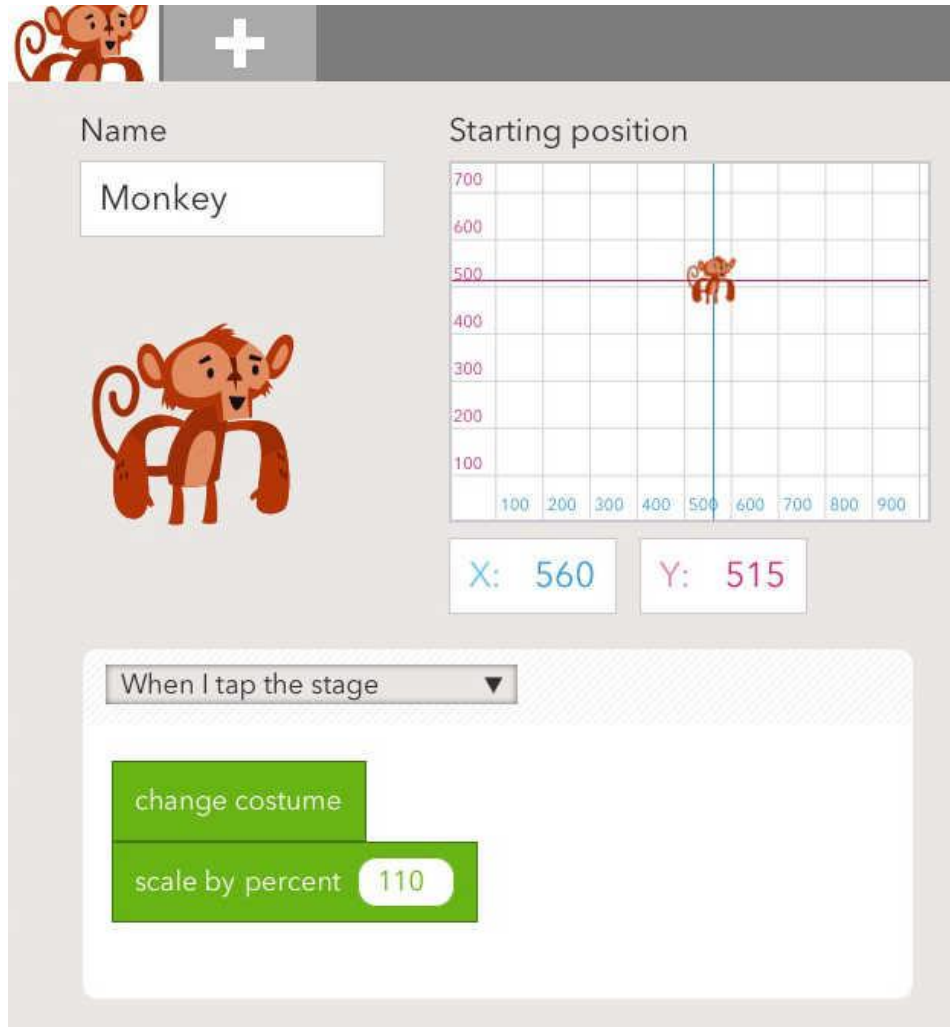
The image shows a Scratch-like interface for a character named "Monkey". The character is a brown monkey with a long tail. The interface includes a "Name" field with the text "Monkey", a "Starting position" grid, and a script editor.

The "Starting position" grid is a coordinate system with X and Y axes ranging from 100 to 900. The monkey is positioned at X: 560 and Y: 515.

The script editor shows a "When I tap the stage" event, which triggers two actions:

- change costume
- scale by percent 110

An orange arrow points to the "When I tap the stage" event block.



No matter when or where I tap the stage, every time I tap the stage Monkey will change her costume and grow a little bit.

It uses those same 2 blocks every time!

Lets write some  
**event handlers**  
to imitate the  
modern artist  
Piet Mondrian!

