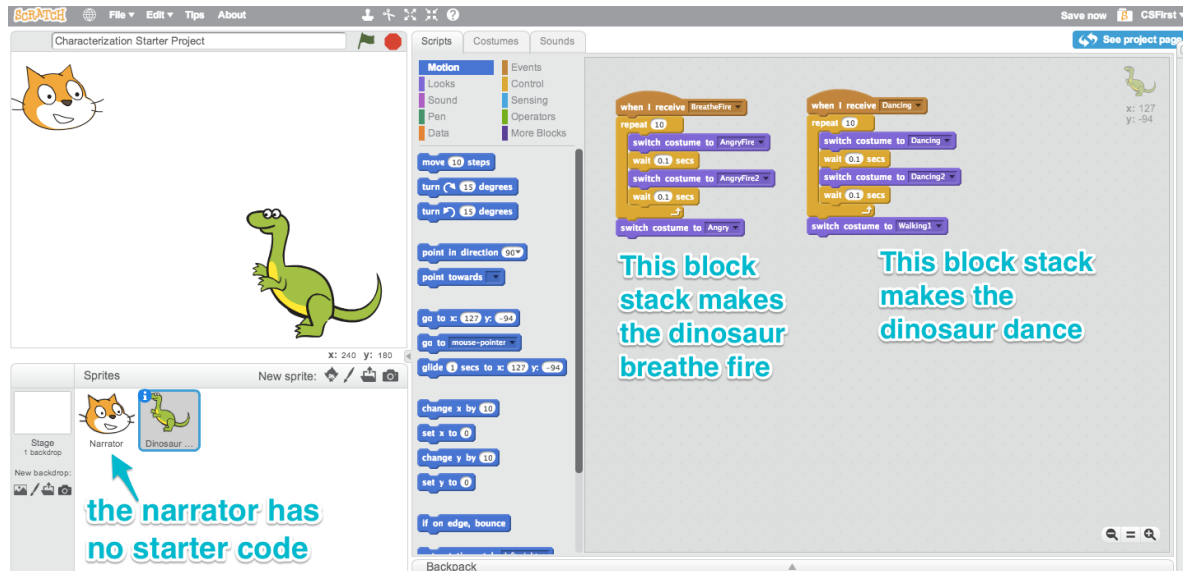


Activity 5: Characterization

Video 1: Introduction to Characterization and Broadcast

In this video, club members will:

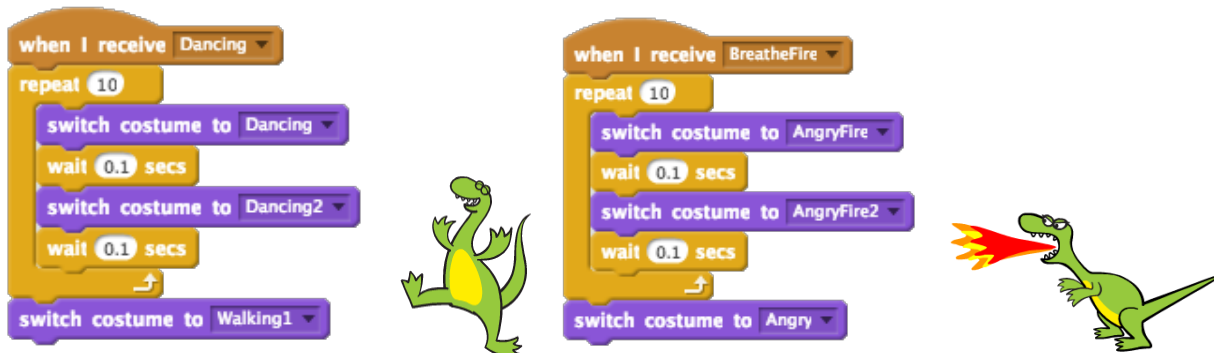
1. Remix the Characterization Starter Project.



Video 2: Using Actions to Learn About a Character

In this video, club members will:

1. Watch what the starter project code does.
2. Choose the order in which the dinosaur will perform these actions.



Video 3: Broadcasting Messages

In this video, club members will:

1. Program the narrator to start telling the story with “say” blocks.
2. Program the narrator to broadcast a message.
3. Start the story when the green flag is clicked.

Club members can use either:

broadcast

which broadcasts the message, then continues running code

OR

broadcast and wait

which waits until the “when I receive” code finishes before continuing.

Example

Code for the
Narrator sprite:



```
when green flag clicked
say This dinosaur's name is Dino for 2 secs
say He is generally friendly and likes to dance for 2 secs
broadcast Dancing
say He doesn't like you to interrupt his dancing though for 2 secs
say If you do, he'll set you on fire for 2 secs
broadcast BreatheFire and wait
```

Video 4: Dinosaurs on Parade

In this video, club members will:

1. Change costumes to make the dinosaur look like it is dancing.
2. Slow the costume change so that users can see it.
3. Keep repeating the costume change.
4. Make the dinosaur move.

Code for
the Dinosaur sprite:



Video 5: Broadcasting Your Own Message

In this video, club members will:

1. Send the message that will make the dinosaur walk.
2. Make the dinosaur walk when it receives the message.

Code for the Narrator sprite:



```

when clicked
  say This dinosaur's name is Dino for 2 secs
  say He is generally friendly and likes to dance for 2 secs
  broadcast Dancing
  say He doesn't like you to interrupt his dancing though for 2 secs
  say If you do, he'll set you on fire for 2 secs
  broadcast BreatheFire and wait
  say Then he takes a walk to cool down for 2 secs
  broadcast Walking and wait
    
```

Note: The last two blocks are highlighted with a red box and labeled 'new code' with an arrow.

Code for the Dinosaur sprite:



```

when I receive Walking
  repeat 10
    switch costume to Walking1
    wait 0.1 secs
    move -4 steps
    switch costume to Walking2
    wait 0.1 secs
    move -4 steps
    
```

Note: The first block is highlighted with a red box and labeled 'new code'.

Add-on 1: Change Setting (Challenge)

In this video, club members will:

1. Choose a new setting.
2. Program the scene to change.
3. Change back to the starting backdrop when the green flag is clicked.

NOTE: Below shows part of the code. Members can use “switch backdrop to” blocks anywhere in the code.

Code for the Narrator sprite:



```

when green flag clicked
  switch backdrop to backdrop1
  say The dinosaur's name is Dino. for 2 secs
  say He is generally friendly and likes to dance. for 2 secs
  
```

Add-on 2: Spin (Challenge)

In this video, club members will:

1. Program the dinosaur to spin.
2. Broadcast the message that will cause the dinosaur to spin.
3. Add the “receive” block on top.

NOTE: Below shows just the new code. It can fit anywhere in club members’ stories

Code for the Narrator sprite:



```

broadcast BreatheFire and wait
say Then he'll spin to make himself feel better for 2 secs
broadcast spin
  
```

Code is for the Dinosaur sprite:



```

when I receive spin
  repeat 36
    turn 10 degrees
  
```

Add-on 3: Get Embarrassed

In this video, club members will:

1. Make the dinosaur look like it's disappearing.
2. Change the dinosaur's costume to a more embarrassed-looking one.
3. Send and receive the "embarrassed" message.

NOTE: Below just shows new code.

Code for the Narrator sprite:



```

when I receive embarrassed
  repeat 7
    change ghost effect by 10
  
```

Code is for the Dinosaur sprite:



```

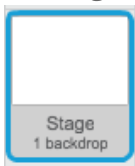
say He gets embarrassed when when he does this. for 2 secs
broadcast embarrassed
  
```

Add-on 4: Write a Song that Plays on Broadcast

In this video, club members will:

1. Build a melody using several "play note" blocks with different notes and beats.
2. Use the "set instrument to" block to change the sound.
3. Use the "set tempo to" block to change the speed.
4. Add an event block with the message to start playing the song.

Code is for the **stage**:



```

when I receive Dancing
  set instrument to 4
  set tempo to 120 bpm
  repeat 3
    play note 55 for 0.5 beats
    play note 52 for 0.5 beats
    play note 48 for 0.5 beats
  play note 48 for 0.5 beats
  
```

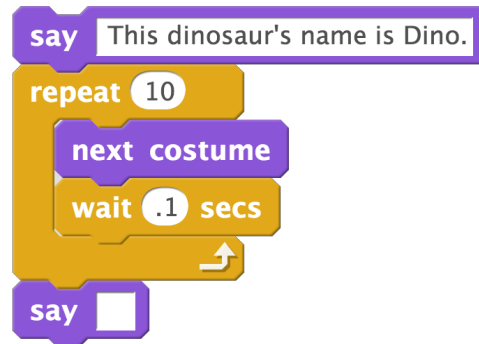
Add-on 5: Animate the Narrator Part 1

In the first video, club members will:

1. Animate the narrator's mouth while talking about the dinosaur.
2. Swap the "say for __ seconds" block with the "say" block from original Narrator code.
3. Add an empty "say" block to the end of the animation code to make the speech bubble disappear.

NOTE: Club members need to watch Parts 1 and 2 to complete this add-on.

Code for the
Narrator sprite:



Add-on 5: Animate the Narrator Part 2

In the second video, club members will:

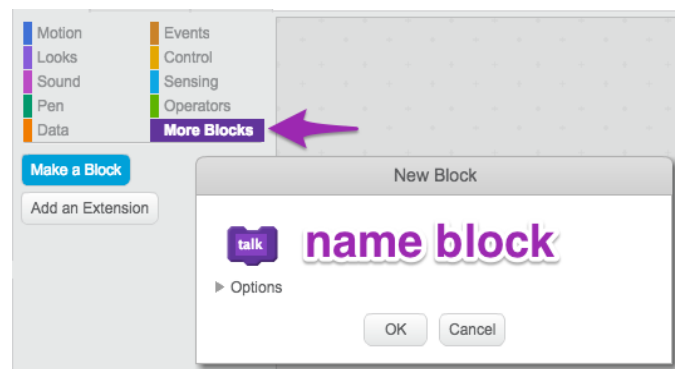
1. Create a new block (function) by going to the "More Blocks" menu, clicking make a block, and naming it something that makes sense.
2. Place the block stack made in Part 1 (that makes the narrator talk) under the "define" block.
3. Edit the block to take "string input."
4. Edit the "say" block to display the input.
5. Use the new block instead of the "say for __ secs" block in their story.

NOTE: Club members need to watch Part 1 and 2 to complete this add-on.

Code for the
Narrator sprite:



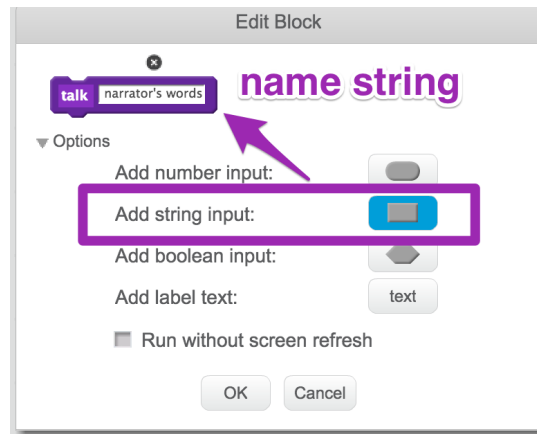
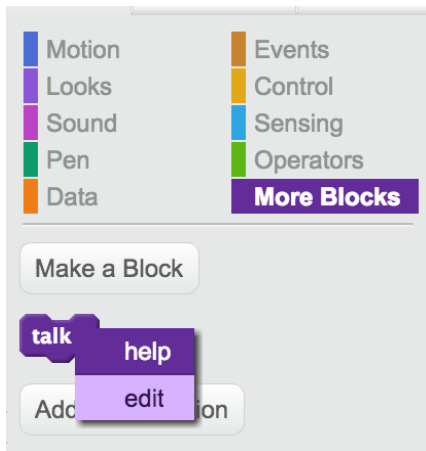
Make a new block:



Define "talk" block:



Edit "talk" block to take "string" input:



Edit "say" block to display input and swap the new block for the "say for __ secs" block:

NOTE: Code contained in the "talk" blocks is from the original core project.



Add-on 6: Add Another Character

In this video, club members will:

1. Add another sprite.
2. Program the sprite's reaction to the narrator's messages.
3. Add "when I receive" blocks to receive the messages.

NOTE: Club members' code will vary. Below is just an example.

Code for the new sprite. Example:

