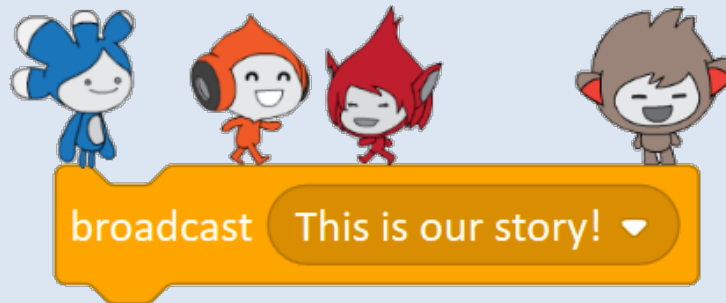


INTERACTING SPRITES

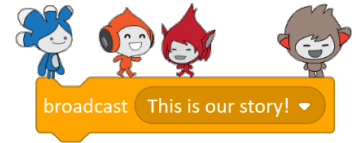
MODULE 3: INVESTIGATION 4

Interactive Stories



MODULE 3: INVESTIGATION 4

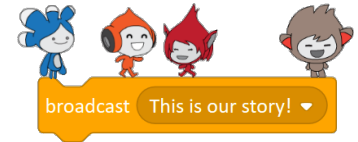
Activity 3.4.1 – Unplugged: Reading Scripts



ACTIVITY 3.4.1: UNPLUGGED Reading Scripts

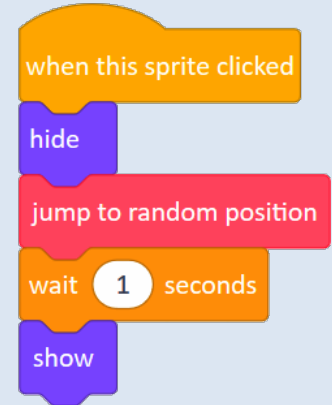
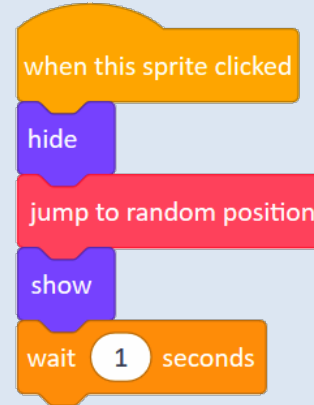
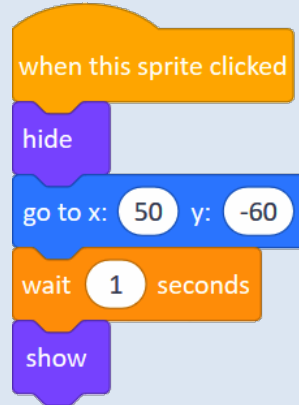
MODULE 3: INVESTIGATION 4

Activity 3.4.1 – Unplugged: Reading Scripts

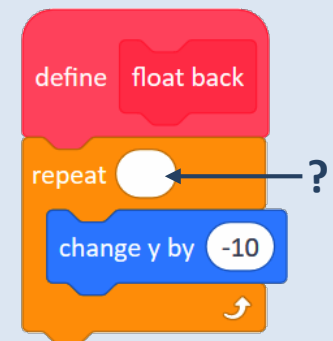
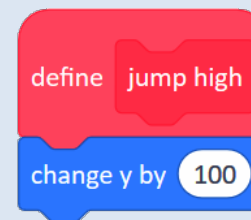
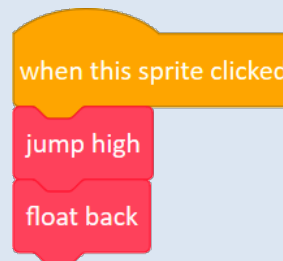


Read the scripts below and answer the question next to it.

- 1 Circle the script that will make Nano **disappear**, teleport to a random position and then reappear after one second.



- 2 What **number** should go in the **repeat** block so that Tera floats back to the same position when she is clicked? Explain why.

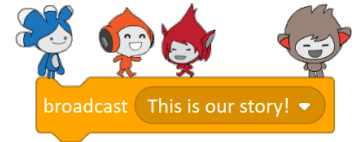


Repeat number =

Explain why =

MODULE 3: INVESTIGATION 4

Activity 3.4.1 – Unplugged: Reading Scripts



- 3 Will Tera move **up** or **down** when the script on the right is clicked? Explain your thinking.

Tera will move

_____ because =



when this sprite clicked

change y by pick random -50 to -10

- 4 Circle the **purple** block that should be added in the script on left to make Pico walk like the picture below.

when this sprite clicked

forever

move 3 steps

wait 0.2 seconds

if on edge, bounce



change size by 10

next costume

show

switch costume to walking 2 ▼

MODULE 3: INVESTIGATION 4

Activity 3.4.1 – Unplugged: Reading Scripts

- 5 Giga is walking towards Nano (see picture). For each of the blocks below **fill in the value** that will be shown when it is clicked.



touching Nano ▼ ?

?

touching color ?

← ?

touching color ?

?

- 6 Next to each of the blocks on the right **fill in the direction** that Tera would move when that block is clicked.



Will Tera move **Up**,
Down, **Left** or **Right**?

change y by 50

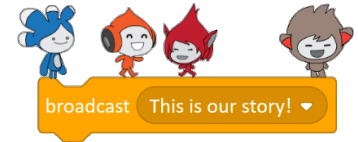
change x by 70

change x by -20

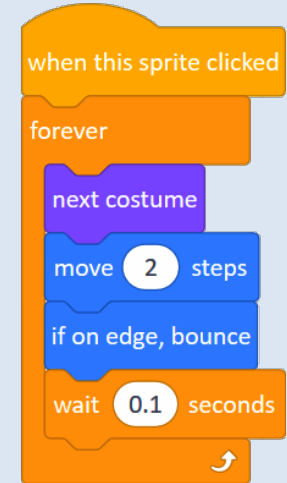
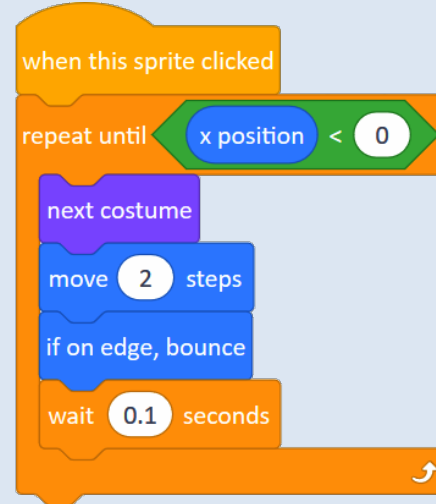
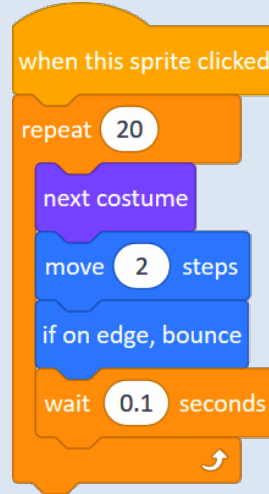
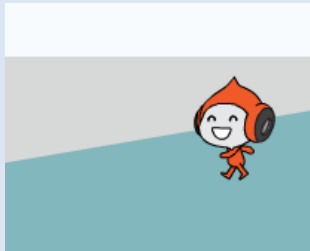
change y by -80

MODULE 3: INVESTIGATION 4

Activity 3.4.1 – Unplugged: Reading Scripts

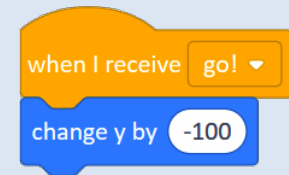
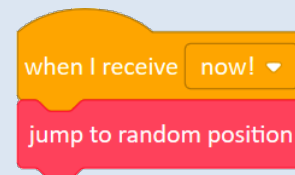
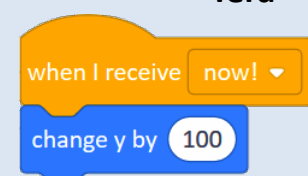
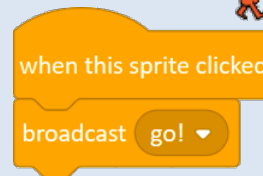


- 7 Pico is near the right edge of the stage. **Circle the script** that will make him **walk** and **stop when he reaches the middle** of the stage.



- 8 Look at Pico's script on the right. What will Nano and Tera do after Pico is clicked? **Explain what will happen** on the screen in the box below.

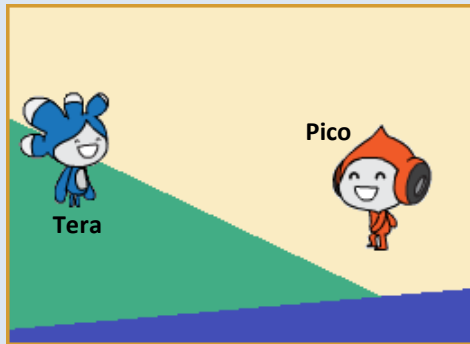
When Pico is clicked...



MODULE 3: INVESTIGATION 4

Activity 3.4.1 – Unplugged: Reading Scripts

- 9 Look at the current position of Pico on the stage. The scripts on the right are in Pico's script area - **explain what will happen** when we click each of the scripts on the right.



```

hide
if touching color [blue] ? then
  go to Tera
  
```

When this script is clicked... what will happen?

```

if touching color [yellow] ? then
  go to Tera
  hide
  
```

When this script is clicked... what will happen?

```

if touching color [green] ? then
  go to Tera
say Hello! for 2 seconds
  
```

When this script is clicked... what will happen?


MODULE 3: INVESTIGATION 4

Activity 3.4.1 – Unplugged: Reading Scripts



- 10 [Extension] When Giga is clicked what will Nano do? **Write your answer** in the box on the right.

Giga



```

when this sprite clicked
  say Hello! for 1 seconds
  broadcast Bye!
  
```

Nano



```

when I receive Hello!
  go to x: -100 y: 0

when I receive Bye!
  hide
  wait 1 seconds
  show
  
```

When Giga is clicked Nano will...

MODULE 3: INVESTIGATION 4

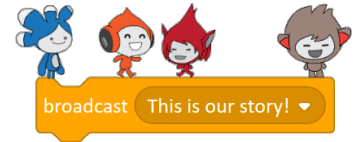
Activity 3.4.2 – Extension: The Story of the Sprites



ACTIVITY 3.4.2 Extension: The Story of the Sprites

MODULE 3: INVESTIGATION 4

Activity 3.4.2 – Extension: The Story of the Sprites



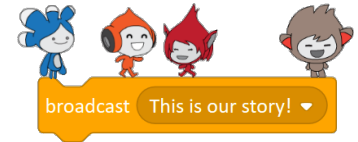
Continue in one of your **31-Multiple Sprites** projects.

- Choose two or more characters from Nano, Tera, Pico and Giga and plan out your story:
 - How do these characters know each other?
 - How could one character visit or greet the others?
 - What could they say to each other? What will they do together?
 - What could happen when one character touches another character?

- Build and debug the scripts for all new behaviours and interactions between your characters.

MODULE 3: INVESTIGATION 4

Activity 3.4.2 – Extension: The Story of the Sprites

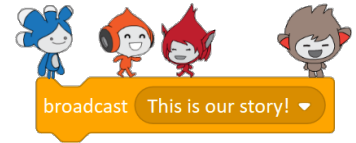


- Explain your story to others, share it with them.
- Exchange your scripts with other groups. Modify the script or scripts you got from other groups to fit into your story.

- What interactions did you build?
- Did you incorporate a script from another group? How did you do this?
- Did you learn any new ideas from the other groups? Did they learn anything new from your group?

?

MODULE 3: INVESTIGATION 4



My **Investigation 4** check list:

- ☐ Our group built an interactive story between two or more sprites.
- ☐ We prepared a plan for our story.
- ☐ We built several Scratch scripts to implement new behaviours.
- ☐ We built several interactions between our characters, using the **broadcast message** and **when I receive message** blocks.
- ☐ We shared a script with another group who used it in their own story project.
- ☐ We used a script from another group in our story project.
- ☐ We modified a script shared by another group within our story project.