Student Name: ..... **Date:** .....

Activity 1.1: Sender and Receiver Match-up

Broadcasting sends an invisible radio signal to every sprite on the stage. Match the sender block to its receiver block.

1. broadcast [jump ▾] ●	● A. when I receive [game_over ▾]
2. broadcast [game_over ▾] ●	● B. when I receive [jump ▾]

Activity 1.2: Animated Dialogue Storyboard

Look at how Cat and Dog use broadcast signals to take turns talking like in a comic strip.

Cat's Script:

when ⚑ clicked

say [Welcome!] for 2 secs

broadcast [cat_finished ▾]

Dog's Script:

when I receive [cat_finished ▾]

say [Thanks Cat!] for 2 secs

Why doesn't Dog talk at the exact same second the green flag is clicked?
Answer: [ ]

Activity 1.3: Event Trigger Ordering

*Number these event blocks **1, 2, and 3** to show the correct order of a game start sequence.*

when I receive [start_game]	when this sprite clicked	broadcast [start_game]
Hero sprite appears	Player clicks PLAY button	Signal sent to hero
?	?	?

Student Name: ..... **Date:** .....

Activity 2.1: The One-to-Many Broadcast Signal

One single broadcast can trigger MULTIPLE sprites simultaneously! Look at the diagram below.

Trigger: `broadcast [ celebrate ▾ ]`

🎉 **Balloons:** float upward 🎶 **Music:** plays trumpet 🐱 **Cat:** does backflip

Do the 3 sprites react one after another, or at the exact same time?
Answer: [ ]

Activity 2.2: Stage Level-Up Algorithm

Complete the code for changing the game background when the player reaches the castle door .

Player Sprite:

```
if < touching [ Door ▾ ] ? > then
    broadcast [          ]
end
```

Backdrop (Stage):

```
when I receive [ next_level ▾ ]
next backdrop
```

Activity 2.3: Debug the Mismatched Signal Bug

Mia created two sprites, but Sprite 2 never dances! Find the spelling bug in the broadcast messages.

Sprite 1 sends:
`broadcast [ dance_party ]`

Sprite 2 listens for:
`when I receive [ DanceParty ]`

Why does Sprite 2 not dance?

- ☐ Broadcast names are case-sensitive and do not match.
- ☐ Scratch doesn't support dancing.