

# Physics

## Motion Sensor 101

Name: \_\_\_\_\_ Block: \_\_\_\_\_

**Learning target: I can explain a graph created using the motion sensor in terms of my movements.**

In this activity you will begin to explore position-time graphs. You will be using a motion sensor connected to a computer which will create a graph of your position at a given time.

### Part 1: Play with the sensor

1. Get familiar with the sensor. Have one person run the computer while another creates the data by moving in front of the motion sensor.
2. Answer the following questions as you play with the sensor:
  - a. What happens on the graph when you stand still?
  - b. What happens on the graph when you move toward the sensor?
  - c. What happens on the graph when you move away from the sensor?
  - d. What happens when you change the speed at which you are moving?
  - e. Write down any other observations you make during this time.

### Part 2: Manipulating the graph

1. Using the knowledge you have gained in Part 1, try to re-create the graph below on the screen. When you are successful, call your teacher over to take a look.

