

Activity: Is It Moving?

Purpose

In this activity, you will observe objects moving around the classroom. You will decide whether each object is **at rest or in motion** by comparing its position to different **reference points**.

Materials

- Small object such as a ball, toy car, pencil, or eraser
- Ruler or metre stick
- Classroom objects to use as reference points
- Paper and pencil

Part 1 — What Counts as Motion?

Place a small object on your desk.

Choose one corner of the desk as your **reference point**.

Record the starting position of the object.

Move the object to a new location.

1. What changed?

2. Was the object in motion? Explain how you know.

3. What reference point did you use?

4. Complete the statement:

An object is in motion when its _____ changes over _____ relative to a reference point.

Part 2 — Change the Reference Point

Work with a partner.

One student should hold an object and slowly walk across the classroom. The other student observes.

Consider the object relative to three different reference points.

Activity: Is It Moving?

Reference Point	At Rest or in Motion?	Evidence
Student carrying the object		
Classroom door		
Desk at the front of the room		

5. Was the object moving relative to the student carrying it? Why or why not?

6. Was the same object moving relative to the classroom door? Explain.

7. What does this tell you about the importance of a reference point?

Part 3 — Motion Detective

Find **five examples** of objects that are moving or at rest in or around the classroom.

For each one, identify the object, its motion, and a reference point.

Object	Motion or Rest?	Reference Point	Description
Example: student walking	Motion	classroom door	Student moves away from the door.
1.			
2.			
3.			
4.			
5.			

Try to use scientific terms such as **position, motion, rest, reference point, distance, direction, and time.**

Part 4 — The Motion Challenge

Imagine you are sitting on a bus travelling down a road.

Relative to the **seat**, are you moving?

Relative to a **tree beside the road**, are you moving?

Relative to another passenger sitting beside you, are you moving?

8. How can you be both at rest and in motion at the same time?
