

## cbse-eng-07-sci-13-1-2

Let us observe different examples of motion and also identify the types of motion.

Children walking in a line it is a rectilinear motion. Car moving on a straight line on a street road it is a rectilinear motion.

Pedaling of a bicycle in motion it is a circular motion. Motion of the earth around the sun it is a circular motion. Motion of a swing it is an oscillatory motion.

Motion of a simple pendulum it is an oscillatory motion. Children do all objects are travel with the same speed? No. Every object has its own time to travel.

### Summary:

**Motion** can be classified into different types based on how an object moves.

- **Rectilinear motion:** When an object moves in a **straight line** (e.g., children walking in a line, a car moving on a straight road).
- **Circular motion:** When an object moves in a **circular path** (e.g., pedaling a bicycle, the Earth revolving around the Sun).
- **Oscillatory motion:** When an object moves **back and forth** repeatedly (e.g., a swing, a simple pendulum).

Not all objects move at the **same speed**—each object takes **different amounts of time** to travel the same distance.

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### Quiz:

**1. What type of motion is a car moving in a straight line?**

- a) Rectilinear motion ☒
- b) Circular motion ☐
- c) Oscillatory motion ☐
- d) Random motion ☐

**2. Which of the following is an example of circular motion?**

- a) The Earth revolving around the Sun ☒

- b) A car moving on a straight road ✕
- c) A child walking in a line ✕
- d) A pendulum swinging ✕

**3. What type of motion does a swing show?**

- a) Oscillatory motion ☒
- b) Rectilinear motion ✕
- c) Circular motion ✕
- d) Irregular motion ✕

**4. Do all objects travel at the same speed?**

- a) No, every object has its own time to travel ☒
- b) Yes, all objects travel at the same speed ✕
- c) Only heavy objects move faster ✕
- d) Speed is not related to motion ✕