



# Position, Direction, and Speed

Force and Motion Presentation #1



# Position

- The position of an object is its location relative to another object (the reference point) for example, “above”, “below”, “beside”, “behind”, “ahead of” plus the distance from the other object.
- Ex- The runner from Fort Mill is 10 meters ahead of the runner from Nation Ford.

## Position (continued)

- The distance (length) from the reference point changes when the object moves.
- Ex. Now the runner from Fort Mill is 15 meters ahead of the runner from Nation Ford.
- Basically, we use position to compare how close/far two objects are to/from each other.

## You Try It

Turn to someone at your table. Tell them the position of an object in the room in relation to another object.

Ex. The flag is 2 feet above the bookcase.

# Direction

- Direction of motion is the course or path that an object is moving and can be determined by reading a compass using the terms “north”, “south”, “east”, or “west.”
- Direction can also be described using the terms “right”, or “left”, “forward”, or “toward” relative to another object, or “up” or “down” relative to Earth.

## You try it!

Turn to someone at your table. Describe to them how to get to another point in the classroom using directional terms.

# Speed

- A measure of how fast an object is moving.
- If a car is driving 60 miles per hour, that means it will drive 60 miles over the course of an hour.
- How far would that car drive in 2 hours?
- How far would that car drive in  $1 \frac{1}{2}$  hours?

# Formula for Speed

Speed= Distance/Time

Example

Speed= 8 miles/4 minutes

Divide 8 by 4.

Your answer is \_\_\_\_\_miles per minute.



## You Try It!

Speed= 40 cm/ 10 sec

Divide 40 by 10.

The speed is \_\_\_\_\_ cm per sec.