

Vocabulary words:

- Acceleration
- Speed
- Slope
- Distance
- Motion
- Average Speed
- International System of Units
- Reference Point
- Instantaneous Speed
- Velocity

Definitions in Glossary

What is motion?

A change in position relative to, or measured from a stationary reference point.

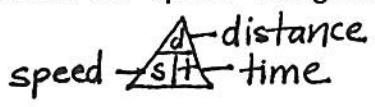
What is speed?

How fast something moves; the rate of motion. The amount of time it takes for a change in position to take place.

What are the 3 types of speed?

Average speed, instantaneous speed, constant speed.

What does the "speed" triangle look like?



How do we calculate speed? What are appropriate units for speed?

$$\text{speed} = \frac{\text{distance}}{\text{time}} \quad / \quad \text{m/s, Km/s, mi/hr}$$

How do we calculate distance? What are appropriate units for distance?

$$\text{distance} = \text{speed} \times \text{time} \quad / \quad \text{meter (m), cm, Km, mi}$$

How do we calculate time? What are appropriate units for time?

$$\text{time} = \frac{\text{distance}}{\text{speed}} \quad / \quad \text{time units} = \text{min, sec, hr}$$

What is velocity?

The speed and direction of a moving body

What is acceleration?

The rate of change of velocity.

How can velocity change?

- Speeding up
- Slowing down
- Changing direction

What is positive acceleration?

- Speeding up

What is negative acceleration?

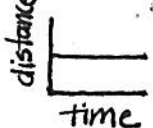
- Slowing down or deceleration

How do we calculate acceleration? What are appropriate units for acceleration?


$$\text{Acceleration} = \frac{\text{Final speed} - \text{Initial speed}}{\text{Time}} \quad / \quad \text{m/s}^2 \text{ or Km/hr}^2$$

Graphing: distance vs time

What does a flat, horizontal line mean?

 means stationary

What does a straight, diagonal line mean?

 constant steady speed

What does a steep slope indicate?

Steep slope indicates fast speed.