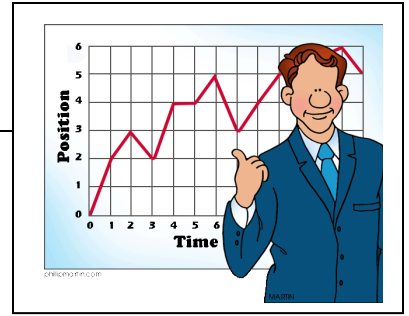


## Week 21 – SCIENCE NOTE PAGE

### Speed & Velocity



#### Speed

- **Speed** is the \_\_\_\_\_ of motion, measured as distance divided by the time required to travel that distance.
- **Speed = distance/time**
  - $S = d/t$
  - HOW FAR you go / the time it takes to get there
  - **Examples:** miles per hour (mph), kilometers per hour (kph), or meters per second (m/s)
- Calculating Average Speed - EXAMPLE
  - Sarah is running at a track meet.
  - She ran **400 meters** in **80 seconds**.
  - What is Sarah's AVERAGE speed?  
 $s = d/t$   
 $s = 400m / 80 s$   
 $s = \underline{\quad} \underline{\text{m/s}}$



#### Velocity

- **Velocity:** is **speed** in a specific direction.
  - Remember **DIRECTION** = up/down, left/right or North, South, East, West
    - **Example:**
      - A jet airplane flying **720 km/hr** \_\_\_\_\_
      - A skydiver freefalling **30 meters per second** \_\_\_\_\_.

#### Interpreting Motion Graphs

- Speed Graph = Position vs. Time
  - Time goes on the **X-axis**
  - Position goes on the **Y-axis**
  - Slope tells the speed:
    - steep = \_\_\_\_\_
    - shallow = \_\_\_\_\_
    - flat = **stopped**

