

MODEL NAME:

CONSTANT VELOCITY PARTICLE MODEL

DESCRIPTION:

Particles moving at
a constant velocity

PROPERTIES:

• MEASURE:

- Position (m) $\rightarrow x$

- Time (s)

- Displacement (m) $\rightarrow \Delta \bar{x}$

- Distance (m) $\rightarrow \Delta x$

• CALCULATE:

- Velocity = $\frac{\Delta \bar{x}}{\Delta t}$

- Speed = $\frac{\Delta x}{\Delta t}$

REPRESENTATIONS:

- Graphical
 - Position - time
 - Velocity - time
- Written Description
- Algebraically
 - $y = mx + b$
 - Equations for speed and velocity
- Motion Maps

RULES OF BEHAVIOR:

- Change in position is $\frac{x}{t}$ directly proportional to change in time.

