

## One dimensional motion

- One dimensional motion is motion along a straight line with constant or changing speed.
- Motion is described in terms of displacement ( $x$ ), time ( $t$ ), velocity ( $v$ ), and acceleration ( $a$ ). Velocity is the rate of change of displacement and the acceleration is the rate of change of velocity. The average velocity and average acceleration are defined by the relationships.
- The case of motion in one dimension (one direction) is a good starting point for the description of motion.
- In analyzing the motion of objects, there are four basic parameters to keep track of. These are time, displacement, velocity, and acceleration. Time is a scalar, while the other three are vectors. In 1 dimension, however, it's difficult to see the difference between a scalar and a vector! The difference will be more obvious in 2 dimensions.
- Motion is defined as change in position of a body over time with respect to the surrounding.