

Object in motion

Task 1: Think about a scenario that only involves **uniform motion**.

Tip: Do not accelerate. The speed should always remain the same. Think about the speed of the object at each second of movement. Does the speed change or stay the same? For example, a car travelling at a constant speed would have uniform motion.

Task 2: Think of a scenario that involves **non-uniform motion**.

Tip: Accelerate and decelerate the car. Speed should change during some portions of the trip. For example, the car might start at 10 kilometers per hour, and then accelerate to 15 kilometers per hour and then slow down in traffic to five kilometres per hour. This example illustrates non-uniform motion.

Task 3: Position-time charts for uniform and non-uniform motion.

The position-time chart for uniform motion is represented by a diagonal line with a constant slope. The position-time chart for non-uniform motion has a curved line with a changing slope.

Task 4: Velocity-time charts for uniform and non-uniform motion.

The velocity-time chart for uniform motion is represented by a straight horizontal line. For the velocity-time chart for non-uniform motion, the graph is a line that moves up and down as the car accelerates and decelerates, respectively.