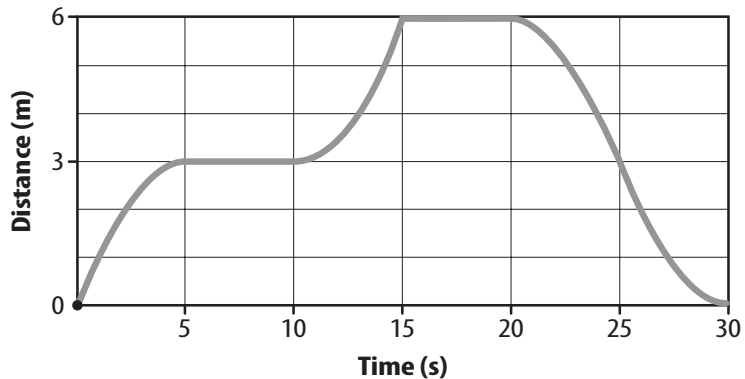


**Inquiry** Launch Lab

**LESSON 3: 10 minutes**

***In what ways can velocity change?***

As you walk, your motion changes in many ways. You probably slow down when the ground is uneven. You might speed up when you realize that you are late for dinner. You change direction many times. What would these changes in velocity look like on a distance-time graph?



**Procedure**

1. Read and complete a lab safety form.
2. Use a **meterstick** to measure a 6-m straight path along the floor. Place a mark with **masking tape** at 0 m, 3 m, and 6 m.
3. Look at the graph above. Decide what type of motion occurs during each 5-second period.
4. Try to walk along your path according to the motion shown on the graph. Have your partner time your walk with a **stopwatch**. Switch roles and repeat this step.

**Think About This**

1. What does a horizontal line segment on a distance-time graph indicate?

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2. **Key Concept** According to the graph, at what times do the following motions take place?

a. You change direction. \_\_\_\_\_

b. Your speed increases. \_\_\_\_\_

c. Your speed decreases. \_\_\_\_\_