

**Motion and Energy** ▪ Reading/Notetaking Guide

**Describing Motion** (pp. 338–341)

*This section explains how to recognize when an object is in motion.*

**Use Target Reading Skills**

*After you read this section, reread the paragraphs that contain definitions of Key Terms. Use all the information you have learned to write a definition of each Key Term in your own words. Be sure your definition could be used to explain the term to someone who has not read the section.*

**motion**

\_\_\_\_\_  
\_\_\_\_\_

**reference point**

\_\_\_\_\_  
\_\_\_\_\_

**distance**

\_\_\_\_\_  
\_\_\_\_\_

**displacement**

\_\_\_\_\_  
\_\_\_\_\_

**vector**

\_\_\_\_\_  
\_\_\_\_\_

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**Motion** (pp. 339–340)

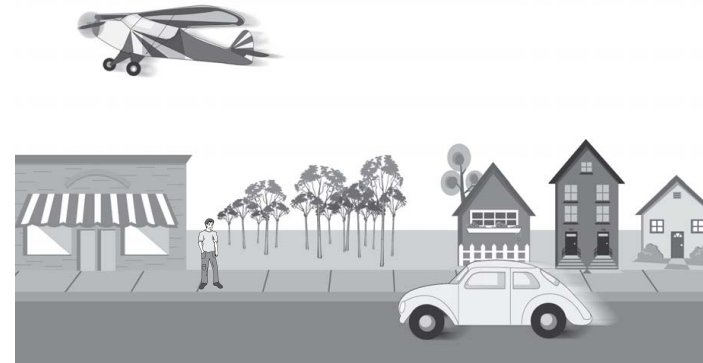
1. An object is in \_\_\_\_\_ when its distance from another object is changing.

2. What is a reference point?

\_\_\_\_\_  
\_\_\_\_\_

3. An object is in motion if it changes position relative to a(n) \_\_\_\_\_.

*Use the figure below to answer questions 4–6.*



4. Suppose you are standing on the sidewalk. Describe your motion relative to the car and the plane.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Suppose you are riding in the car. Describe your motion relative to the person standing on the sidewalk and the plane.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

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**Describing Motion** (*continued*)

6. Suppose you are riding in the plane. Describe your motion relative to the person standing on the sidewalk and the car.

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**Distance and Displacement** (pp. 340–341)

7. An object's \_\_\_\_\_ is the length and the direction that the object has moved from its starting point.
8. Circle the letter of each sentence that is true about distance.
- a. It is the length and direction that an object has moved from its starting point.
  - b. It is a vector.
  - c. It is the length of the path between two points.
  - d. It is a quantity that consists of both a magnitude and a direction.
9. What can be shown graphically by using an arrow?

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