

Lesson Outline**LESSON 1*****Position and Motion*****A. Describing Position**

1. A(n) _____ is a starting point you choose to describe the location, or position, of an object.
2. A(n) _____ is an object's distance and direction from a reference point.
3. A complete description of a position includes a distance, a(n) _____, and a reference point.
4. A good choice for a(n) _____ is something that is easy to find.
5. If a reference point changes, the description of an object's _____ will also change.
6. Changing a reference point does not change the actual _____ of an object.
7. When you describe an object's position, you compare its location to a reference _____.
8. A reference direction can be described as a(n) _____ direction. The opposite direction is the _____ direction.

B. Describing Position in Two Dimensions

1. When you describe position using two directions, you are using two _____.
2. Examples of _____ directions in two dimensions include "north and east" and "right and forward."
3. To find a position in two dimensions, first choose a reference _____. Next specify reference _____. Then determine the _____ along each reference direction.

C. Describing Changes in Position

1. _____ is the process of changing position. It is always described relative to a(n) _____.
2. It is possible to move with regard to one _____ and stay motionless with regard to another _____.

Lesson Outline continued

3. _____ is the length of the path an object moves along.
4. _____ is the difference between the initial position and the final position of an object.
5. Distance and displacement are equal only if the motion is in one _____.