

Chapter 12: Matter in Motion – Toolkit 1: Page 336

Section 1: Measuring Motion

Vocabulary words:

Motion	<hr/> <hr/> <hr/>
Average speed	<hr/> <hr/> <hr/>
Velocity	<hr/> <hr/> <hr/>
Acceleration	<hr/> <hr/> <hr/>

What is a reference point?	<hr/> <hr/>
Examples of standard reference points.	<hr/> <hr/>
What are the four reference directions on a graph?	<hr/> <hr/>
What is the difference between speed and average speed? Units for speed:	<hr/> <hr/>
How can speed be shown on a graph?	Speed can be shown on a graph of _____ versus _____. On a graph of position vs time, the slope of the line is equal to the _____.
What is the difference between speed and velocity? Units for velocity:	<hr/> <hr/>
What is positive acceleration? What is negative acceleration? Units for acceleration:	<hr/> <hr/> <hr/>
What is centripetal acceleration?	<hr/> <hr/>

What does negative acceleration look like on a graph of speed versus time?	
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Review Questions: Textbook Page 343.

2. Give 3 examples of acceleration. Be sure that each example describes a different kind of change in velocity.	1. _____ Velocity change _____ 2. _____ Velocity change _____ 3. _____ Velocity change _____
3. Describe the position of an object in the room by using a standard reference point and a set of reference directions.	_____ _____
4. What 2 things must you specify when describing the velocity of an object?	_____ _____
5. What two things must you know to determine average speed?	_____ _____
6. Explain how the average speed of an object moving along a path can differ from the speed of the object at a certain point on that path.	_____ _____
7. How does a graph showing speed differ from a graph showing acceleration?	_____ _____
8. Can you use this data to figure out what your fastest speed was during your bike ride? Explain.	_____ _____
9. Interpreting graphics: A person walked from her home to the store. Use a reference point and reference directions to describe how the person moved.	_____ _____
10. Find the average speed of a person who swims 105 m in 70 s.	
11. A wolf is chasing a rabbit. Use the following data to graph the wolf's motion: 15m/s at 0s, 10m/s at 1s, 5m/s at 2s, 2.5m/s at 3s, 1m/s at 4s and 0m/s at 5s. Interpret the graph to describe the wolf's motion.	_____ _____ _____