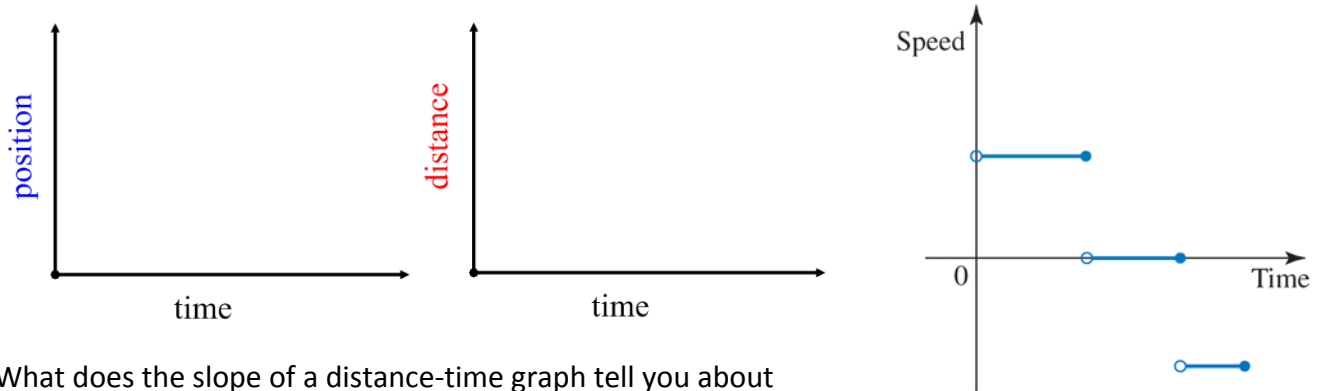


Distance-time graphs show the total distance traveled.

Position-time graphs tell how far, over time, the object is from the starting point.

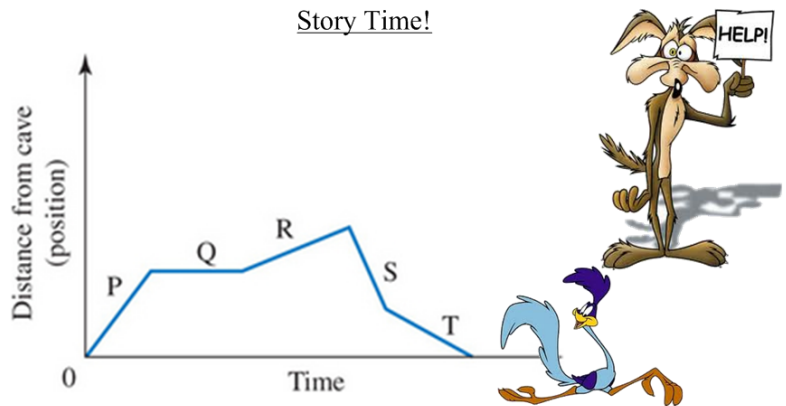
Example: Wile E. Coyote leaves his cave, walking at a slow yet constant speed. Then he stops to build a trap for Road Runner. After several minutes, he turns around and runs back to his cave at a constant speed.



What does the slope of a distance-time graph tell you about speed?

A position-time graph can have a negative slope, but a distance-time graph cannot. How is the interpretation of speed different for distance-time and position-time graphs?

Make up a story to go along with the graph. (The letters P, Q, R, S, and T are for reference, but you do not need to use them in your story.)



Relating a graph and a table to a problem situation now appears in elementary school textbooks, as the excerpt below shows. This activity is from a fourth-grade textbook. Give it a try!

Name _____

Date _____

Student Sheet 13

Matching Numbers, Stories, and Graphs

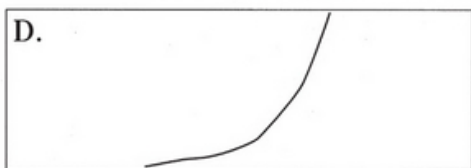
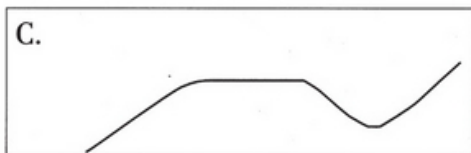
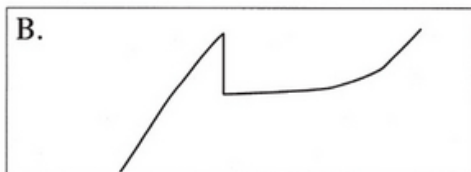
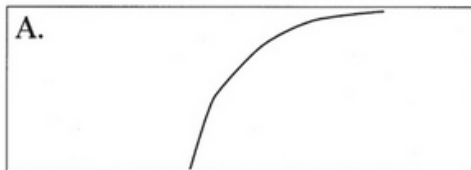
Cut out the charts, stories, and graphs. Group them to make three sets that match.

Heights	Heights	Heights
1	1	2
3	1.5	4
5.5	2	6
8.5	2.5	8
6	3.5	9
6	5	10
7	7	11

Your plant was growing very slowly on a window sill that got no sunlight. You moved it to a sunny window. Then it started growing more quickly.

Your plant was growing quickly for a while. Then you forgot to water it for several days. That made it grow more slowly.

Your plant was growing quickly for a few days. Then you dropped it and the top of it broke off. It stopped growing for a while before it started growing again.



*From Cornelia Tierney, Ricardo Nemirovsky, and Amy Shulman Weinberg, *Changes Over Time Graphs*, Grade 4, p. 92. Copyright © 1998 Pearson Education, Inc. or its affiliate(s). Used by permission. All rights reserved.