

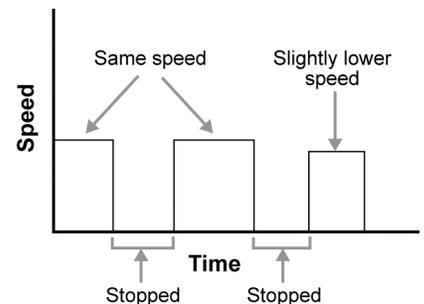
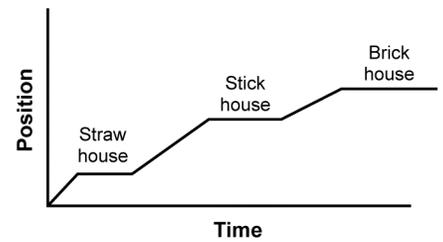
Motion Graphs Without Numbers

Position-Time & Speed-Time Graphs

The graphs at right represent the story of “The Three Little Pigs.” The parts of the story are listed below.

- The wolf started from his house. The graph starts at the origin.
- Traveled to the straw house. The line moves upward.
- Stayed to blow it down and eat dinner. The line is flat because position is not changing.
- Traveled to the stick house. The line moves upward again.
- Again stayed, blew it down, and ate seconds. The line is flat.
- Traveled to the brick house. The line moves upward.
- Died in the stew pot at the brick house. The line is flat.

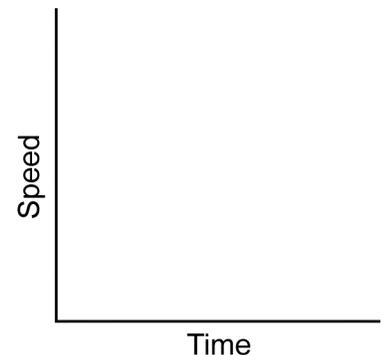
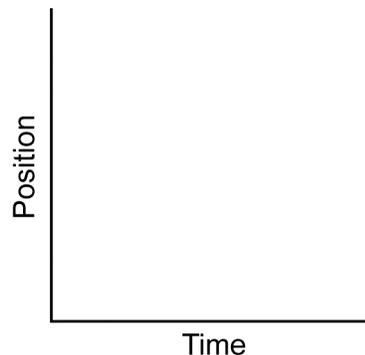
Position-time graph of the wolf in
The Three Little Pigs



You Try It!

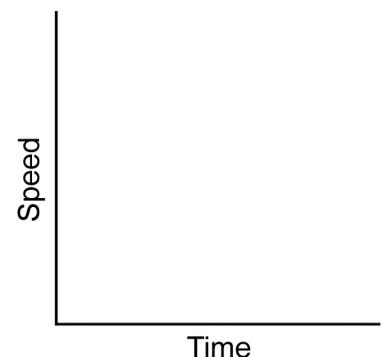
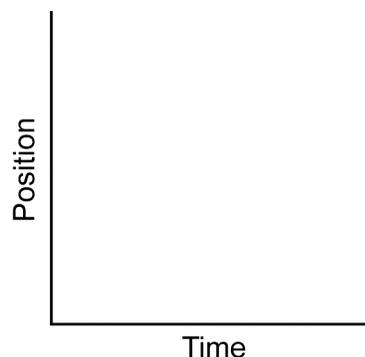
1. Read the steps for each story. Sketch a position-time graph & a speed-time graph for the story. Graph Red Riding Hood’s movements according to the following events:

- Little Red Riding Hood set out for Grandmother’s cottage at a good walking pace.
- She stopped briefly to talk to the wolf.
- She walked a bit slower because they were talking as they walked to the wild flowers.
- She stopped to pick flowers for quite a while.
- Realizing she was late, Red Riding Hood ran the rest of the way to Grandmother’s cottage.



2. Graph the movements of the Tortoise & the Hare. Use two lines to show the movements of each animal.

- The tortoise & the hare began their race from the combined start-finish line. By the end of the race, the two will be at the same position at which they started.
- Quickly outdistancing the tortoise, the hare ran off at a moderate speed.
- The tortoise took off at a slow but steady speed.
- The hare, with an enormous lead, stopped for a short nap.
- With a startle, the hare awoke and realized that he had been sleeping for a long time.
- The hare raced off toward the finish at top speed.
- Before the hare could catch up, the tortoise’s steady pace won the race with an hour to spare.



3. Time to be creative! First, create your own entertaining story that includes at least 5 steps. Then, draw the position-time graph & the speed-time graph that represents the motion of the character.

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