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## Science Skills

## Reading Motion Graphs

You have learned how to calculate speed. Remember it is distance divided by time. Units can be feet per second ( $\mathrm{ft} / \mathrm{min}$ ) or miles per hour $(\mathrm{m} / \mathrm{hr})$ or meters per second ( $\mathrm{m} / \mathrm{sec}$ ).

1. From the graph below determine the distance and speed while riding a skateboard.

| Time in <br> seconds | Distance <br> in feet | Speed |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |


2. Between what times is he going the slowest?
a. between 2 and 3 seconds
b. between 3 and 4 seconds
c. between 4 and 5 seconds
d. between 5 and 6 seconds
3. Between what times is he going the fastest?
a. between 2 and 3 seconds
b. between 3 and 4 seconds
c. between 4 and 5 seconds
d. between 5 and 6 seconds
4. From the graph below determine the distance and speed while playing with a electric model train.

| Time in <br> seconds | Distance <br> in feet | Speed |
| :---: | :---: | :---: |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |


5. Between what times is the train going the fastest?
a. between 2 and 3 seconds
b. between 3 and 4 seconds
c. between 4 and 5 seconds
d. between 5 and 6 seconds
6. Between what times is the train going the same speed?
a. between 1 and 4 seconds
b. between 4 and 5 seconds
c. between 5 and 6 seconds

## True or False

$\qquad$ 7. When the train has the fastest speed the line on the graph is steep like a mountain.
$\qquad$ 8. When the train has the same (constant) speed the line goes up and down.
9. When the skateboarder has the slowest speed the line is flat.
10. If the skateboarder covers 10 miles with a speed of 1 mile per minute how long will it take him to cover the 10 miles? $\qquad$
11. If the train covers 250 miles at a speed of 50 miles per minute how long will it take the train to cover the 250 miles? $\qquad$

