


The grade 5 English science unit, Movement of objects, meets the academic content standards set in the Korean curriculum, which state students should:
A. Understand an object's movement as positional changes over time and understand an objects speed qualitatively by observing a moving object
B. Be able to compare the speed of objects by measuring the time it takes for the object to move over a certain distance
C. Be able to compare the speed of objects by measuring the distance the object moves withing a given time
D. Be able to calculate an objects speed by measuring the distance it moves and the time required.


| Compare | 비교하다 | To judge one thing in relation to another in order to see the similarities and differences． |
| :---: | :---: | :---: |
|  | 比較 |  |
| Dangerous | 위험한 | Likely to cause harm or injury；not safe；risky． |
|  | 危険 |  |
| Describe | 설명하다 | To tell something so that your listener gets an understanding of it． |
|  | 説明 |  |
| Distance | 거리 | The space between two places． |
|  | 距離 |  |
| Example | 예 | You use For example to help explain what you are saying or to show that it is true． |
|  | 例 |  |
| Kill | 죽이다 | To cause the death of a person，animal or living thing． |
|  | 殺す |  |


| Kilometer | 길로미터 | $\begin{aligned} & \text { A unit of length in the } \\ & \text { metric system equal to } \\ & 1000 \text { meters. } \end{aligned}$ |
| :---: | :---: | :---: |
|  | キロメートル |  |
| Measure | 층정하다 | To find out the size of mething |
|  | 測定 |  |
| Period | 기간 | Alenth |
|  | 期 |  |
| Position | 위치 | The place wheresomething is located． |
|  | 位置 |  |
| Speed | 속도 | The rate at whichsomeone or somethingmoves． |
|  | スビード速度 |  |
| Unit | 단위 | An amount used as a measurement |
|  | 単位 |  |




Speed is the measure of distance over time. It is written as:

$$
\frac{\text { Distance }}{\text { Time }}: \mathrm{km} / \mathrm{hr} \text { or } \mathrm{m} / \mathrm{s}
$$

When you drive in a car, you normally move at $\mathrm{km} / \mathrm{hr}$

Distance:
Distance is the measure of how far we travel. It is written in $\mathrm{cm}, \mathrm{m}$ and km

Time:
Time is the measure of how long it takes to move somewhere. It is written in sec, min and hr.


$$
\text { Speed }=10 \frac{\mathrm{~km}}{\mathrm{hr}}
$$

$$
\text { Time }=\frac{\text { Distance }}{\text { Speed }}
$$

$$
T=\frac{D}{S}
$$

You can see that things move if their position changes, over a period of time. If something changes position every second, then that thing has a speed.
This movement can be seen even in pictures.
Take a look at the race cars on the track below $\downarrow$.


## Start.



How can you describe speed?

Which of the 2 pictures is faster?(colour the pictures).

Racetrack 1.

Start

## 3 Seconds later

Racetrack 2.


Start


Sanghoo is driving to school. He drives 300 km and he is driving 150 $\mathrm{km} / \mathrm{hr}$. How long does it take for Sanghoo to go to school

| Time ? | Distance $\ldots$ | Speed _____ |
| :---: | :--- | :--- |

Time = Distance $\qquad$ $\div$ speed $\qquad$ $=$ $\qquad$ hr

Hajin is running to school. She runs 1 km and she is running $15 \mathrm{~km} / \mathrm{hr}$. How long does it take for Hajin to go to school


Benjamin is biking to school. He bikes 2 km and he is biking $30 \mathrm{~km} / \mathrm{hr}$. How long does it take for Benjamin to go to school

| Time ? | Distance $\ldots$ | Speed $\ldots$ |
| :---: | :--- | :--- |

Time = Distance $\qquad$ $\div$ Speed $\qquad$ $=$ $\qquad$ hr


Write down how fast your car drove in the given distance.
Name

| Distance | Time | Speed |
| :---: | :---: | :---: |
| 5 m |  |  |
| 5 m |  |  |
| 5 m |  |  |
| 5 m |  |  |
| 5 m |  |  |

Who was the fastest in your group? How fast did their car drive?
$\square$

Who was the fastest in the class? How fast did their car drive?

the green star.

## Distance

## $\square$ <br> Position

## *

## $\star=-$ Speed

$\star$ U


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$$
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$$

When you drive in a car, you normally move at $\mathrm{km} / \mathrm{hr}$

## Distance:

Distance is the measure of how far we travel. It is written in cm , m and km

Time:
Time is the measure of how long it takes to move somewhere. It is written in sec, min and hr.

Distance: 10km

Time: 1 hour


$$
\text { Speed }=10 \frac{\mathrm{~km}}{\mathrm{hr}}
$$

Distance $=$ Speed $x$ time
$D=\mathrm{S} \times \mathrm{T}$
SXT

Distance is how far we moves. Last week we talked about something having a speed if it changed its position over a period of time. This week we will focus on the Position.
Position is something changing from where something was to where it is. Moving 1 kilometer, 1 meter or even 1 centimeter, means changing your position

Daily Highights
(1) Hike trom Masome to Tumaso
(2) Hhe fom Tumaso to Nollit


(5) Hhe Uayltoge Pass recum to oryc


Hirasawa


Kyoto ${ }^{\bullet}$
男 Nagoya
$\square$

One square is 1 square Kilometer $1 \mathrm{~km}^{2}$. Draw a line that is 9 km long

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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One square is 1 square meter $1 \mathrm{~m}^{2}$. Draw a line that is 20 m long

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| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

Jiu is driving to school. Jiu drives for 3 hours at a speed of $50 \mathrm{~km} / \mathrm{hr}$. How far will Jiu get?


Distance $=$ speed $\qquad$ X time $\qquad$ $=$ $\qquad$ km

Benjamin is biking home. He bikes for 30 minutes at a speed of $15 \mathrm{~km} / \mathrm{hr}$. How far will Benjamin get?


Distance $=$ speed $\qquad$ X time = $\qquad$ km

Shu is running to school. Shu runs for 15 hours at a speed of $10 \mathrm{~km} / \mathrm{hr}$. How far will he get?

| Distance ? | Speed $\ldots \ldots$ | Time $\ldots$ |
| :---: | :--- | :--- |

$\qquad$ X time $=$ $\qquad$ km


| Write down how fast you biked in the given time. |  |  |  |
| :---: | :---: | :---: | :---: |
| Name | Distance | Time | Speed |
|  |  | 6 minutes |  |
|  |  | 6 minutes |  |
|  |  | 6 minutes |  |
|  |  | 6 minutes |  |
|  |  | 6 minutes |  |

Who was the fastest in your group? How fast did they bike?


Who was the fastest in your class? How fast did they bike?




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$$

When you drive in a car, you normally move at $\mathrm{km} / \mathrm{hr}$

## Distance:

Distance is the measure of how far we travel. It is written in cm , m and km

Time:
Time is the measure of how long it takes to move somewhere. It is written in sec, min and hr.

Distance: 10km

Time: 1 hour


Speed $=10 \frac{\mathrm{~km}}{\mathrm{hr}}$
Distance $=$ Speed $x$ time
$D=\mathrm{S} \times \mathrm{T}$

Speed is the combination of distance and time. When we move over a period of time, we have a speed. That speed is defined by either $\mathrm{km} / \mathrm{hr}$ or $\mathrm{m} / \mathrm{s}$. Speed is how fast we are moving. When we bike, when we run, even when we drive in a car, then we have a speed.
People often say, that it is the speed that kills. When there is an accident, the speed is one of the biggest reasons that the accident is dangerous.



Jooa is driving to school. Jooa drives for 30 km , it takes 3 hours for her to go to school. How fast was she driving?


Myoungjin is running to school. He runs for 5 km , it takes 10 minutes for him to go to school. How fast was he running?


Siyul is biking to school. Siyul drives for 300km, it takes 5 hours for her to go to school. How fast was she biking?



## 1. How can you describe speed?

$\square$
2. Write the words in their unit version.


Meters per second
Kilometers per second


$\qquad$


Mr. Stacey is biking to work. Mr. Stacey bikes for 10 hours at a speed of 50 $\mathrm{km} / \mathrm{hr}$. How far will Mr. Stacey get?


Distance $=$ speed $\qquad$ X time
= $\qquad$ km

Mr. Chris is running home. He runs for 16 km , it takes 30 minutes for him to go home. How fast was he running?


Mr. Cartlidge is driving to his vacation home. He drives 240 km and he is driving $60 \mathrm{~km} / \mathrm{hr}$.
How long does it take for Mr. Cartlidge to go to his vacation home?

| Time ? | Distance $\ldots$ | Speed $\ldots$ |
| :---: | :--- | :--- |

Time = Distance $\qquad$ $\div$ Speed $\qquad$ $=$ $\qquad$ hr


