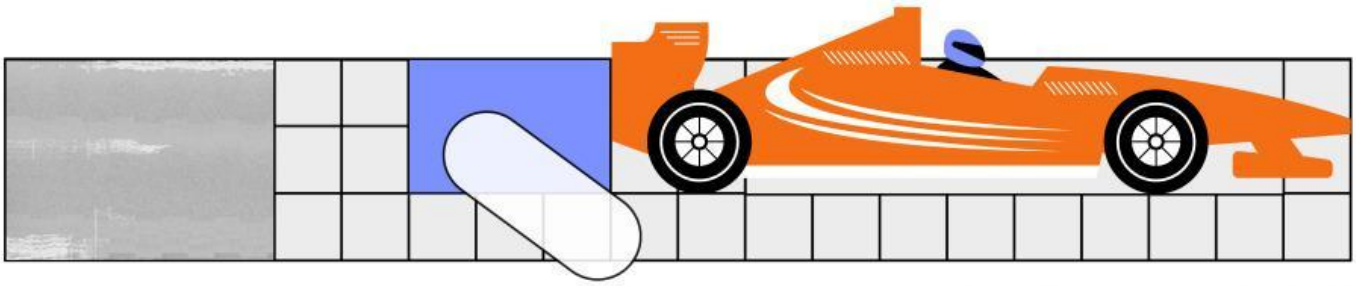
SIDEWO (Physics Student Worksheet

Defining speed, distance and time

How are the three related?

Solving worded problems

Producing a table of values



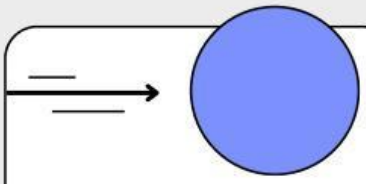
LIVEWORKSHEETS

Tujuan Pembelajaran

a. Peserta didik mampu mengetahui dan menganalisis fenomena pemanasan global dan efek rumah kaca.
b. Peserta didik menganalisis penyebab efek rumah kaca
c. Peserta didik menghubungkan dampak dari efek rumah kaca dalam kehidupan dan lingkungan sehari-hari.
d. Peserta didik mampu mengevaluasi ide atau gagasannya dalam mencegah terjadinya efek rumah kaca.
e. Peserta didik mampu mengkomunikasikan hasil penyeledikan melalui lisan dan tulisan.

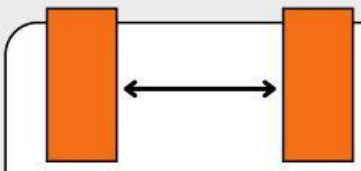
LIVEWORKSHEETS

Let's define speed, distance and time:



Speed tells us how fast something is travelling. The greater the value, the faster it's going.

Common units of measurement:
kilometres per hour (kph) and miles per hour (mph)



Distance is the amount of space between two points that an object covers as it moves.

Common units of measurement:
kilometres (km) or miles (mi)

Time is the period it takes to travel a certain distance.

Common units of measurement:
hours (h), minutes (min) or seconds (s)

LIVEWORKSHEETS

How are speed, distance and time related?

You can find the speed of an object if you know the distance it travelled and the time elapsed to travel the distance.

THE FORMULA

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

LIVEWORKSHEETS

Check your understanding!

MATCH THE FOLLOWING:

How fast?	Speed
How long?	Distance
How far?	Time

THE FORMULA

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

From the formula, how do we solve for distance?

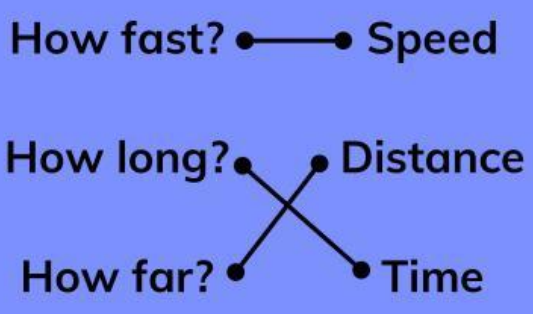
From the formula, how do we solve for time?

LIVEWORKSHEETS

ANSWER KEY

Check your understanding!

MATCH THE FOLLOWING:



THE FORMULA

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

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

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

LIVEWORKSHEETS

Solving Worded Problems

Ava ran from Sunfolk to South Trove in 1 h 30 min. If Ava has an average speed of 9.33 km/h, how far was she able to travel?

Remember to convert 1h 30 minutes into one unit before calculating!

1 h 30 min = 1.5 h

Since we're looking for distance, we'll use this formula:

Distance = Speed × Time

Substitute the given values:

Distance = 9.33 kph × 1.5 h

Solve:

Distance = 13.99 ≈ 14 km

Ava ran a distance of 14 km from Sunfolk to South Trove.

LIVEWORKSHEETS

Producing a Table of Values

Jude rode around the boundary of Russetville that has a distance of 140 km. What is Jude's average speed for each of the given time:

Use the formula:

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

Time (hour)	1	2	3	4	5	6	7
Speed (kph)							

LIVEWORKSHEETS

ANSWER KEY

Producing a Table of Values

Jude rode around the boundary of Russetville that has a distance of 140 km. What is Jude's average speed for each of the given time:

Use the formula:

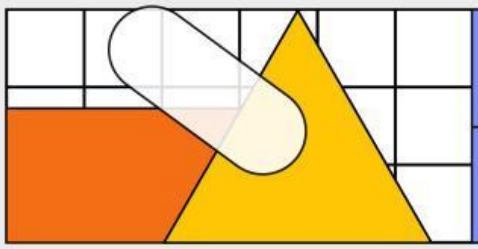
$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

Time (hour)	1	2	3	4	5	6	7
Speed (kph)	140	70	47	35	28	23	20

LIVEWORKSHEETS

Graph it!

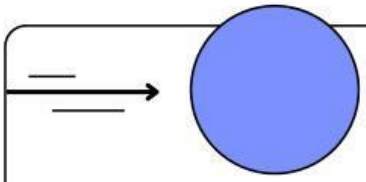
Work with a seatmate in graphing the table of values. Observe the graph, find out whether it is linear or not, then explain your answer.
Share your findings with the class in our next session.



Time (hour)	1	2	3	4	5	6	7
Speed (kph)	140	70	47	35	28	23	20

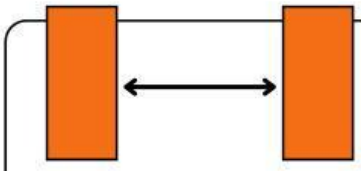
LIVEWORKSHEETS

Summary



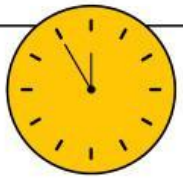
Speed tells us how fast something is travelling. The greater the value, the faster it's going.

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



Distance is the amount of space between two points that an object covers as it moves.

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

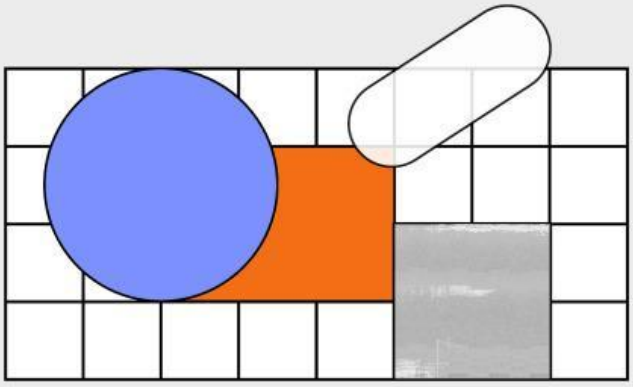


Time is the period it takes to travel a certain distance.

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

LIVEWORKSHEETS

Resources



WANT TO LEARN MORE?

Review “13.06 Attributes in measurement formula” from Mathspace.

NEED HELP?

Reach out!
hello@reallygreatsite.com

LIVEWORKSHEETS