

I can work out how long a journey will take, the speed travelled at or distance covered, using my knowledge of the link between time, distance and speed.

TIME, DISTANCE and SPEED CALCULATIONS

QUESTION

A car is travelling at 65 km/h.
If the journey took 2 hours and 30 minutes how far did the car travel?

ANSWER

$S = 65 \text{ km/h}$
 $T = 2 \text{ hrs } 30 \text{ mins}$
 $T = 2.5 \text{ hours}$
 $D = S \times T$
 $D = 65 \times 2.5$
 $D = 162.5 \text{ km}$

VOCABULARY

speed

The distance travelled in a single unit of time:- metres per second ,m/s, kilometres per hour, km/h, miles per hour, etc

average speed

Total distance travelled divided by the total time taken. (We must take account of the fact that the speed of a journey is not constant).

SUCCESS CRITERIA/STEPS

I CAN:

- | | |
|---|---|
| a | write down the information from the question |
| b | change time to a single unit (if required) |
| c | decide which formula to use and write it down |
| d | substitute into formula |
| e | multiply OR divide to get answer |

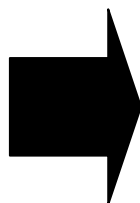
HAVE I:

- | |
|--|
| communicated what I have done (shown all working). |
| shown my working neatly and clearly. |
| used pencil and paper whenever possible before reaching for my calculator. |

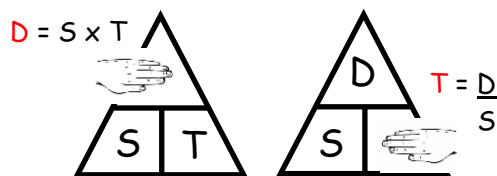
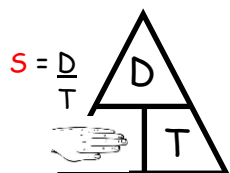
LIFE SKILLS:

We could use this numeracy skill when estimating the time it will take for a journey, how far we will travel in a given time or at what speed will we need to travel at to get where we are going in the time that we have got.

We could use this numeracy skill in PE, Geography, Physics, Maths, English and History.



WHAT'S THE FORMULA?



MINUTES	←→	HOURS
15 mins	$\frac{15}{60}$ hr	$\frac{1}{4}$ hr
30 mins	$\frac{30}{60}$ hr	$\frac{1}{2}$ hr
45 mins	$\frac{45}{60}$ hr	$\frac{3}{4}$ hr

MINUTES	←→	HOURS
20 mins	$\frac{20}{60}$ hr	$\frac{1}{3}$ hr
40 mins	$\frac{40}{60}$ hr	$\frac{2}{3}$ hr
24 mins	$\frac{24}{60}$ hr	$\frac{2}{5}$ hr
55 mins	$\frac{55}{60}$ hr	$\frac{11}{12}$ hr

Time Line

