

LO: To explore the difference between imperial and metric measurements

This lesson is slightly different. Oak Learning have lots of great resources and explanations so I am asking you to try out one of their lessons. Below is the link:

<https://classroom.thenational.academy/lessons/to-convert-miles-and-kilometres>

Have a go at the quiz first, but don't worry if you are unsure of the answers - this is the first time you have learnt about this!

Next, use the tabs at the bottom to choose next to watch a video about the learning. As mentioned, you will need a paper and pencil and be prepared to pause the video at certain points to have a go at answering the questions. You are given the answers and working out in the video.

When you have worked through the video, have a go at the end of lesson quiz. This table should help you:

Miles	km	Miles	km
0	0	35	56
1	1.6	40	64
5	8	45	72
10	16	50	80
15	24	62	100
20	32	100	160
25	40	150	240
30	48	200	320

Did you get a better score than when you completed it at the beginning of the lesson?

LO: To convert between metric and imperial measurements

What imperial measures can you think of? (Think back to yesterdays video, near the beginning)

Pints, inches, miles, pounds, stone, gallons, quarts, ounces, feet

Sort these onto the table below to show what they type of measurement they are:

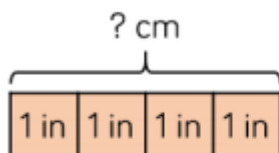
Length	Weight	Capacity

Today, we are going to look at converting measurements between inches and cm. This is the important conversion:

One inch is approximately 2.5 centimetres
 $1 \text{ inch} \approx 2.5 \text{ cm}$

Use the bar model to calculate these conversions.

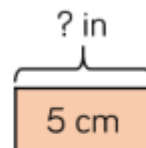
Use the bar models to help with the conversions.



$$16\text{in} \approx \boxed{} \text{ cm}$$

$$15\text{in} \approx \boxed{} \text{ cm}$$

$$33\text{in} \approx \boxed{} \text{ m}$$



$$10\text{cm} \approx \boxed{} \text{ in}$$

$$1\text{cm} \approx \boxed{} \text{ in}$$

$$5.5\text{m} \approx \boxed{} \text{ in}$$

Similar to our conversions between miles and km, we can draw a table to help with our conversions. Complete the table below to help with the following questions:

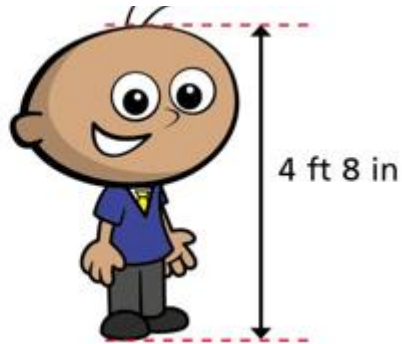
Inches	Cm	Inches	Cm
0.4	1		100
1	2.5	50	
4		100	
5			
	15		
10			
15			
	50		

I have left some spaces blank if you need to calculate any other different measurements

Use these facts to calculate the answer to this question:

There are 12 inches in 1 foot.

Tommy is 4 feet 8 inches tall.



a) What is Tommy's height in inches?

inches

b) Approximately, how tall is Tommy in centimetres?

cm

Now have a go at the Lesson 2 Activity: word problems converting cm/m and inches.

LO: To convert between metric and imperial measurements


Thinking back to yesterday, is this true or false?

True or False?

Imperial units

Tommy is 4 foot 7 inches tall.

Alex is 135 cm tall.



Tommy is taller than Alex.

White Rose Maths

Have a look at the answers sheet to find out if you are correct.

Today we are going to be using the strategies already learnt to help with some metric to imperial conversions for capacity and weight.

The important information you need today is:

1 kilogram is approximately equal to 2.2 pounds

$$1 \text{ kg} \approx 2.2 \text{ lb}$$

1 pint is approximately equal to 568 millilitres

$$1 \text{ pint} \approx 568 \text{ ml}$$

Have a go at filling in these conversions.

Remember you can use multiplying or adding through partitioning of your known facts to help.

Weight:

Use this fact to complete the conversions.

a) $2 \text{ kg} \approx \boxed{} \text{ lb}$

e) $\boxed{} \text{ kg} \approx 22 \text{ lb}$

b) $4 \text{ kg} \approx \boxed{} \text{ lb}$

f) $24.2 \text{ lbs} \approx \boxed{} \text{ kg}$

c) $5 \text{ kg} \approx \boxed{} \text{ lb}$

g) $\boxed{} \text{ kg} \approx 220 \text{ lb}$

d) $0.5 \text{ kg} \approx \boxed{} \text{ lb}$

h) $2,500 \text{ g} \approx \boxed{} \text{ lb}$

Capacity:

Use this fact to complete the conversions.

a) $2 \text{ pints} \approx \boxed{} \text{ ml}$

e) $\boxed{} \text{ l} \approx 5 \text{ pints}$

b) $4 \text{ pints} \approx \boxed{} \text{ ml}$

f) $56.8 \text{ ml} \approx \boxed{} \text{ pints}$

c) $5 \text{ pints} \approx \boxed{} \text{ ml}$

g) $\boxed{} \text{ pints} \approx 56.8 \text{ l}$

d) $0.5 \text{ pints} \approx \boxed{} \text{ ml}$

h) $20 \text{ pints} \approx \boxed{} \text{ l}$

If it helps, you could design your own table to show these conversions like we did in the previous 2 lessons.

Now, we are going to have a go at some problem solving bringing together all these conversion from metric to imperial.

Remember to

- Read the question carefully
- Underline any important information
- Choose which calculation you might use to solve it - you might use the bar model to help or draw a picture
- Solve the calculation
- Answer the question (remember to include units)
- Check your answer - does it make sense? Use the inverse or rounding to check your calculation.

Jack's house has 3 pints of milk delivered 4 times a week.

How many litres of milk does Jack have delivered each week?



He uses about 200 ml of milk every day in his cereal. Approximately, how many pints of milk does Jack use for his cereal in a week?

I am going to underline the key facts in the first part of the question.

First of all I need to calculate 'how many litres'.

As I already know pints, I will do that first.

3 pints, 4 times a week

So $3 \times 4 = 12$

I have solved my calculation, but need to answer the question, which is asked for in litres.

If 1 pint \approx 568 ml, then to find 12 pints, I need to multiply 568×12 .

You could choose the grid method or short multiplication method to solve this.

$$568 \times 12 = 6816 \text{ ml}$$

To turn this into litres, I need to divide by 1000.

$6816\text{ml} = \underline{6.816\text{l}}$ or $\underline{6.8\text{l}}$ (rounded to the nearest tenth)

Using this fact, have a go at the second part of the question.

Now have a go at the lesson 3 activity sheet, which uses the conversions you have learnt during the week.

LO: To convert between different units of time

What units of time can you think of?

Think about the answers to these talk questions. Have a check on the answer sheet if you are not sure about any.

How many months / weeks / days are there in a year?

How many hours / minutes / seconds are there in a day?

Can 21 days be written in weeks? Can 25 days be written in weeks? Explain your answers.

Is 0.75 hours the same as 75 minutes? Why or why not?

Now, can you complete this question:

Use the numbers to complete the statements.

60	52	7	12	60	24
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- a) There are days in a week.
- b) There are hours in a day.
- c) There are minutes in an hour.
- d) There are weeks in a year.
- e) There are months in a year.
- f) There are seconds in a minute.


Have a look at this video, which includes a time conversion problem.

<https://www.bbc.co.uk/bitesize/clips/zq7xn39>


You need to be able to solve problems which include all these time units and conversions between them.

Have a go at these reasoning questions. Make sure you write down the calculation you are completing.


Three children are running a race.



Esin finishes the race in 2 minutes 5 seconds.



Zach finishes the race in 195 seconds.



Leanna finishes the race in 145 seconds.

Who finishes the race first?

Ron and Eva have known each other for 103 days.

For how many weeks and days have they known each other?

weeks and days

Now have a go at the **Lesson 4 activity**. It is a game to play (you could play with an older sibling or adult). The instructions are on the sheet. The answers are next to the question on the sheet before you cut it out, so make sure you give them a really good shuffle before you start the game.

E4E

Work out how old you are in days, hours and minutes.

days hours minutes

LO: To use timetables to retrieve information and solve problems associated with them

When might you use timetables in everyday life?

Here is an example of a time table.

True or False?

Timetab

Eva is traveling from school to the library. She looks at her watch and checks the timetable.



I will arrive
at the
library at
15:15

Wood Lane	14:35	14:50
School	14:45	15:00
High Street	14:50	15:05
Post Office	14:57	15:12
Library	15:00	15:15
Station	15:05	15:20

Think about whether Eva's statement is true or false. The clock shows the time on her watch at the moment.

Today, you will be looking at retrieving information from time tables and solving word problems about them.

Here is a bus timetable.



	Bus A	Bus B	Bus C
Green Park Road	08:45	09:00	09:15
Forrest Drive	09:05	09:20	09:35
Summerville Street	09:22	09:37	09:52
Penny Bridge	09:40	09:55	

a) What time does Bus A arrive at Green Park Road?

b) What time does Bus B arrive at Summerville Street?

c) What time does Bus C arrive at Forrest Drive?

d) Each bus takes the same amount of time to get from Green Park Road to Penny Bridge.

What time does Bus C arrive at Penny Bridge?

e) Eva needs to be at Summerville Street by 9:35

Which bus does she need to get from Green Park Road?

When reading timetables, it is really important to remember the difference between the 12 and 24 hour clock, which you practised in Year 4. Remember:

12-hour clock

The **12**-hour clock notation uses **am** and **pm** to indicate morning and afternoon.

- *am* is the time from **12** midnight and before **12** noon (**12.00pm** is midday)
- *pm* is the time from **12** midday and before **12** midnight (**12.00am** is midnight)

For example

- **6.23am**
- **7.45pm**

24-hour clock

The **24**-hour clock does not require the use of am or pm. Afternoon is indicated by a number bigger than **12**.



When converting from the 12-hour clock to the 24-hour clock remember: for any time after 12.59pm, add 12 to the hours.

For example

- **6.23pm** becomes $(6.23 + 12) = 18:23$
- **7.45pm** becomes $(7.45 + 12) = 19:45$

The **24**-hour clock always uses **4 digits**, so for any time before **10:00** a zero is placed at the beginning.

For example

- **01:00** means **1.00am**
- **13:00** means **1.00pm**
- **04:00** means **4.00am**
- **16:00** means **4.00pm**

Complete this table with your conversions:

12-hour clock	24-hour clock
6.45am	06:45
11.00pm	
	12:01
1.03am	
	15:14

Look at this TV guide. Are times given in the 12 or 24 hour clock? How do you know?

Here is an extract from a TV guide.

17:00	17:30	18:00	18:30	19:00	19:30	20:00
News	Catch It!	Giant George	Wilson Street	News	Detective Files	

a) At what times is the news on?

 and


b) What time does *Detective Files* start?

c) How long is *Wilson Street* on for? _____

Now have a go at answering the questions.

Finally, here is a train timetable. Have a go at answering the questions linked to it.

Here is part of a train timetable.



St Pancras	06:25	06:40	06:55	07:05	07:22
Stratford	06:32	06:47	07:02	07:12	07:29
Ebbsfleet	06:43	06:59	07:15	07:23	07:40
Ashford	—	07:19	—	07:42	—
Gravesend	06:47	—	07:18	—	07:43

- a) How many of the trains go all the way from St Pancras to Gravesend?

- b) How long does the 06:40 take to get from St Pancras to Ashford?

 minutes

- c) Which train takes the least amount of time to get from St Pancras to Gravesend?

For your *lesson 5 activity* this week, we would like you to draw a timetable for a current week day. Think about what time you are getting up at the moment. When are you having your meals? When are you completing any home-schooling activities (including the subjects)? What activities are you managing to do in between?

This is what a school weekly timetable might look like usually. You just need to choose one day from the week to complete it for. This is not in the 24 hour clock, can you complete yours using your knowledge of the 24 hour clock.

Day	9.00-9.30	9.30 - 10.30	10.30-10.45	10.45-11.00	11.00 - 12.00	12.00-12.30	12.30-1.30	1.30-1.50	1.50 - 2.30	2.30 - 3.10	
7/7	Guided Reading	English	Assembly	Playtime	Maths	Times tables	Lunch	Spelling Test - Thursday	Science		
Mon											
Tues		English	Assembly		Maths	Times tables			ICT	Art/DT	
Wed		English	Sketching		Maths	Times tables			PSHE	French	
Thurs		Maths	Singing 10.15-10.45		English	Times tables			PE	Music	
Fri		Topic	Assembly		Maths/Grammar			PE/Swimming		RE	

Now think about the answers to these questions:

How many minutes do you spend working?

How many seconds do you have for lunch break?

How many hours and minutes are you awake?

Do you spend more time inside or outside? What is the difference in time?

As everyone's timetables will be different, this activity does not have a specific answer. You could share yours with an adult at home and they can see if they agree with it!

Telling the time

Telling the time is a really important life skill. If you are still not confident on telling the time from an analogue clock, then now is a great time to practise. This school website has lots of ideas and links to websites which you could work on with an adult at home.

<https://www.westcourt.kent.sch.uk/telling-the-time-useful-links-and-resources/>