

Hello children. Welcome to a new week - Not long to go until the summer holidays begin. Before our main task we are going to work on another math brain teaser.

Maths Brain Teaser - 14

Complete the Magic Square using only the numbers 1 - 16, so that each row, column and the two centre diagonals total 34. You cannot use the same number twice.

| | | | |
|----|----|----|----|
| 16 | | 3 | |
| | 11 | | |
| | | | 12 |
| 4 | | 15 | 1 |

Were you able to complete the brainteaser? How long did it take you to complete it this time? Again, well done for trying :-)

Next we are going to continue to work from the White Rose learning. **Metric Units**

Please let the video guide you when tackling the activity.

1. Copy or click on the link (press Ctrl then click) <https://whiterosemaths.com/homele>.



Then click Year 5

The screenshot shows the White Rose Maths website interface. At the top left, there is a 'Summer Term Plans' section with a 'Click here for more details' button. Below this is a 'Hello there, Parents and Carers!' section with introductory text. The main navigation area features a grid of buttons for 'Early Years', 'Year 1', 'Year 2', 'Year 3', 'Year 4', 'Year 5', 'Year 6', 'Year 7', 'Year 8', 'Year 9', 'Year 10', and 'By Topic'. A blue arrow points to the 'Year 5' button with the word 'click' written next to it. On the right side, there is a 'Home Learning' sidebar menu with a list of links for 'Home Learning - Early Years' through 'Home Learning - Year 10'.




Click

First, watch the video to support your learning and use it to work on the activity sheets below.

Lesson 1 - Metric units

Have a go  

| | |
|---|---|
| 1 metre = 100 centimetres | 1 metre = 1,000 millimetres |
| 2 metres = <input type="text"/> centimetres | 4 metres = <input type="text"/> millimetres |
| 5 metres = <input type="text"/> centimetres | <input type="text"/> metres = 8,000 millimetres |
| <input type="text"/> metres = 1,000 centimetres | 12 metres = <input type="text"/> millimetres |

 10:31  

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Looking for the worksheets? Contact [us](#) to check if they have a subscription to our worksheets. Alternatively, [read more here](#) or get support from [BBC Bitesize](#).

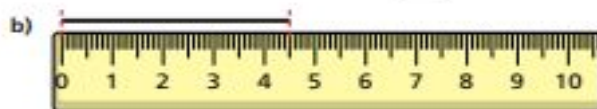
Metric units

1 How long is each line?

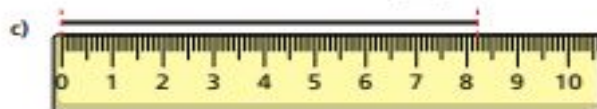
Give your answer in both centimetres and millimetres.



cm mm



cm mm



cm mm



cm mm

2 Complete the conversion.

1 cm = mm

3 Dexter is converting units of measure.



If I know how many millimetres are in 1 cm, and how many centimetres are in 1 m, then I can work out how many millimetres are in 1 m.

Complete Dexter's workings to show that he is correct.

1 m = cm
 1 cm = mm
 so, 1 m = mm

What other conversions could you work out using Dexter's method?

4 Complete the conversions.

- | | |
|-------------------------------------|--|
| a) 15 cm = <input type="text"/> mm | e) <input type="text"/> cm = 0.2 m |
| b) 12 m = <input type="text"/> cm | f) 4.65 m = <input type="text"/> cm |
| c) 16.5 m = <input type="text"/> cm | g) 52,000 mm = <input type="text"/> cm |
| d) <input type="text"/> mm = 165 cm | h) 52,000 mm = <input type="text"/> m |

- 5 Mo and Rosie are measuring the length of the playground.



I'm going to measure it in metres.

Mo

Rosie

I'm going to measure it in centimetres.



- a) Whose unit of measure is more appropriate? _____

Explain your answer.

- b) Rosie has measured the length of the playground as 563 cm.

What answer will Mo get in metres?

 m


- 6 Eva and Amir are measuring the length of a paper clip.



I'm going to measure it in millimetres.

Eva

Amir

I'm going to measure it in centimetres.



- a) Whose unit of measure is more appropriate? _____

Explain your answer.

- b) Amir has measured the length of the paper clip as 0.8 cm.

What answer will Eva get in millimetres?

 mm


- 7 The table shows the heights of four sunflowers.

| Sunflower | A | B | C | D |
|-----------|--------|-------|--------|-------|
| Height | 0.86 m | 91 cm | 640 mm | 72 cm |

Put the sunflowers in order, starting with the shortest.



- 8 The depth of a plank is 15 mm.

12 of the planks are stacked on top of each other.

What is the depth of the stack of planks?

Give your answer in centimetres.


 cm

- 9 Dexter is 146 cm tall.

Annie is 0.27 m shorter than Dexter.

How tall is Annie?

Give your answer in metres.

 m

- 10 The thickness of a 20p coin is 2 mm.

Tommy stacks £4 worth of 20p coins on top of each other.

How tall is the stack of coins?

Give your answer in centimetres.


 cm

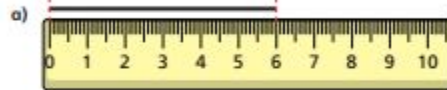
Answers

Metric units

White
Rose
Maths

1 How long is each line?

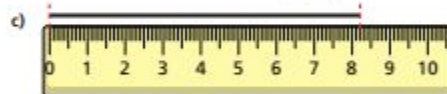
Give your answer in both centimetres and millimetres.



6 cm 60 mm



4.5 cm 45 mm



8.2 cm 82 mm



5.3 cm 53 mm

2 Complete the conversion.

1 cm = 10 mm

3 Dexter is converting units of measure.



If I know how many millimetres are in 1 cm, and how many centimetres are in 1 m, then I can work out how many millimetres are in 1 m.

Complete Dexter's workings to show that he is correct.

$$\begin{aligned} 1 \text{ m} &= 100 \text{ cm} \\ 1 \text{ cm} &= 10 \text{ mm} \\ \text{so, } 1 \text{ m} &= 1,000 \text{ mm} \end{aligned}$$

What other conversions could you work out using Dexter's method?

4 Complete the conversions.

a) 15 cm = 150 mm

e) 20 cm = 0.2 m

b) 12 m = 1,200 cm

f) 4.65 m = 465 cm

c) 16.5 m = 1,650 cm

g) 52,000 mm = 5,200 cm

d) 1650 mm = 165 cm

h) 52,000 mm = 52 m

5 Mo and Rosie are measuring the length of the playground.



I'm going to measure it in metres.

Rosie

I'm going to measure it in centimetres.



Mo

a) Whose unit of measure is more appropriate? Mo

Explain your answer.

b) Rosie has measured the length of the playground as 563 cm.

What answer will Mo get in metres?

5.63 m

6 Eva and Amir are measuring the length of a paper clip.



I'm going to measure it in millimetres.

Amir

I'm going to measure it in centimetres.



Eva

a) Whose unit of measure is more appropriate? Eva

Explain your answer.

b) Amir has measured the length of the paper clip as 0.8 cm.

What answer will Eva get in millimetres?

8 mm

7 The table shows the heights of four sunflowers.

| Sunflower | A | B | C | D |
|-----------|--------|-------|--------|-------|
| Height | 0.86 m | 91 cm | 640 mm | 72 cm |

Put the sunflowers in order, starting with the shortest.

C D A B

8 The depth of a plank is 15 mm.

12 of the planks are stacked on top of each other.

What is the depth of the stack of planks?

Give your answer in centimetres.



18 cm

9 Dexter is 146 cm tall.

Annie is 0.27 m shorter than Dexter.

How tall is Annie?

Give your answer in metres.

1.19 m

10 The thickness of a 20p coin is 2 mm.

Tommy stacks £4 worth of 20p coins on top of each other.

How tall is the stack of coins?

Give your answer in centimetres.



4 cm

14. Magic Square with a constant of 34:

| | | | |
|----|----|----|----|
| 16 | 2 | 3 | 13 |
| 5 | 11 | 10 | 8 |
| 9 | 7 | 6 | 12 |
| 4 | 14 | 15 | 1 |