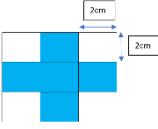
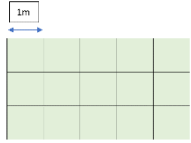
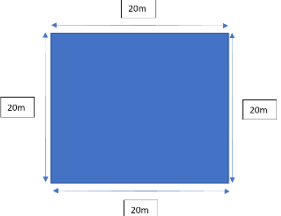


Year 3 Maths – week beginning 29.6.2020

| Theme | Perimeter (Lesson 1 of 5) Measuring Perimeter | Perimeter (Lesson 2 of 5) Measuring Perimeter | Perimeter (Lesson 3 of 5) Measuring Perimeter | Perimeter (Lesson 4 of 5) Calculating Perimeter | Perimeter (Lesson 5 of 5) Calculating Perimeter |
|---|--|---|---|--|---|
| Factual fluency (to aid fluency) | Identify the angles (10 questions) | Perpendicular and parallel lines (10 questions) | Add three or more one-digit numbers (10 questions) | Times tables practice (10 questions) | Times tables practice (10 questions) |
| <p>Problem/activity of the day</p> <p>Remember, just like in class, you can still show the depth of your knowledge LINK</p> | <p>(Lesson 1 resources below) MAKING LINKS: Last week, you learnt to describe 2D shapes, including describing and measuring the sides. Today, you will be learning to measure the total length around a shape.</p> <p>THINK: (support below) Ruby uses yarn to outline each shape. How can she find the length of yarn she needs? Our problem is on textbook page 242. Look at it now.</p> <p>SEE: (model below) Our problem and the solution is shown on page 242 of your textbook. Look at pages 244-245 of your textbook for further examples. Watch the lesson video here</p> <p>DO: Use what you have learnt today to solve: Part 1: Questions a-d on page 243 of your textbook and questions a-d on page 246 of your textbook. Check your answers before moving onto: Part 2: Worksheets 1 and 2 on pages 185-188 of your workbook.</p> | <p>(Lesson 2 resources below) MAKING LINKS: Yesterday, you learnt to measure the total length around a shape (the perimeter). Today, you will be continuing with this.</p> <p>THINK: (support below) Four pupils use tiles to make a shape with a perimeter of 10cm. Who is correct? Our problem is on textbook page 247. Look at it now.</p> <p>SEE: (model below) Our problem and the solution is shown on pages 247-248 of your textbook. Watch the lesson video here</p> <p>DO: Use what you have learnt today to solve: Part 1: Questions 1 and 2 on page 249 of your textbook. Check your answers before moving onto: Part 2: Worksheet 3 on pages 189-190 of your workbook.</p> | <p>(Lesson 3 resources below) MAKING LINKS: Yesterday, you continued learning to measure perimeter. Today, you will measure perimeter where the scale on the grid is different.</p> <p>THINK: (support below) Sam, Lulu and Ruby use different methods to measure the perimeter of a shape. What is wrong with their methods?</p>  <p>Our problem is on textbook page 250. Look at it now.</p> <p>SEE: (model below) Our problem and the solution are shown on pages 250-251 of your textbook. Watch the lesson video here</p> <p>DO: Use what you have learnt today to solve: Part 1: Questions 1 and 2 on pages 252-253 of your textbook. Check your answers before moving onto: Part 2: Worksheet 4 on pages 191-192 of your workbook.</p> | <p>(Lesson 4 resources below) MAKING LINKS: Yesterday, you learnt to measure perimeter where the scale on the grid was different. Today, you will learn to calculate perimeter in metres.</p> <p>THINK: (support below) Large tiles are used to form a rectangle. How far is the distance around the rectangle? Compare it to the perimeter of a tile.</p>  <p>Our problem is on textbook page 256. Look at it now.</p> <p>SEE: (model below) Our problem and the solution are shown on page 256 of your textbook. Watch the lesson video here</p> <p>DO: Use what you have learnt today to solve: Part 1: Questions a-g on page 257 of your textbook. Check your answers before moving onto: Part 2: Worksheet 6 on pages 195-196 of your workbook.</p> | <p>(Lesson 5 resources below) MAKING LINKS: Yesterday, you learnt to calculate the perimeter of figures in metres. Today, you will be continuing with this.</p> <p>THINK: (support below) Find the perimeter of the square.</p>  <p>Our problem is on textbook page 258. Look at it now.</p> <p>SEE: (model below) Our problem and the solution are shown on pages 258-259 of your textbook. Watch the lesson video here</p> <p>DO: Use what you have learnt today to solve: Part 1: Questions 1-4 on pages 260-261 of your textbook. Check your answers before moving onto: Part 2: Worksheet 7 on pages 197-198 of your workbook.</p> |
| Methods, tips, clues & checks | Day 1 resources and answers below | Day 2 resources and answers below | Day 3 resources and answers below | Day 4 resources and answers below | Day 5 resources and answers below |

[See below for resources to support you to THINK-SEE-DO](#)

DAY 1 RESOURCES:

THINK:

Look at page 242 of your textbook now. Be sure to read all of the information as many times as you need to understand.

Ruby uses yarn to outline each shape. How can she find the length of yarn she needs?

Use wool, string, shoe laces or something similar around your house and a ruler to find out.

DO:

Part 1:

Complete questions a-d on page 243 of your textbook and complete questions a-d on page 246 of your textbook.

Check your answers below.

Part 2:

In your workbook, complete:

Questions 1 and 2 of worksheet 1, pages 185-186

Questions 1 and 2 of worksheet 2, pages 187-188

Top tips:

Draw arrows along the sides of each shape to help you count like in the figures on pages 242 and 244-245 of your textbook.

Always start in the same place to make sure you don't accidentally count the same side twice!

SEE:

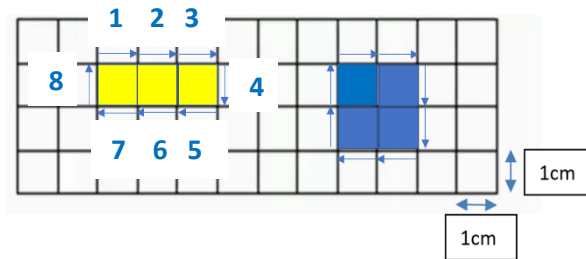
Check the solution on page 242 of your textbook.

Look on pages 244-245 of your textbook for further examples.

[Watch the lesson video here.](#)

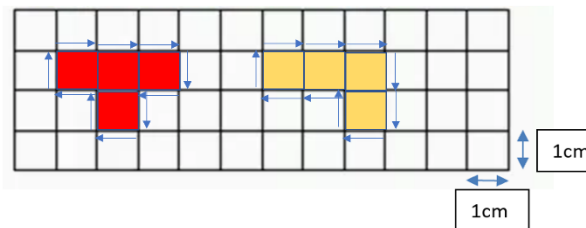
You can use string, wool or a shoe lace to outline each shape. Then you can measure the length of string you needed to outline the shape. Remember to line up the string carefully on your ruler starting at 0cm.

The total length around a figure is called the **perimeter** of the figure.



The total length around the **rectangle** is 8cm.
The **perimeter** of the **rectangle** is 8cm.

The total length around the **square** is 8cm.
The **perimeter** of the **square** is 8cm.



The **perimeter** of the **red figure** is 10cm.

The **perimeter** of the **yellow figure** is 10cm.

Count the squares along the sides of the shape to find the perimeter. Follow the arrows to help you.



DAY 2 RESOURCES:

THINK:

Look at page 247 of your textbook. Be sure to read all of the information as many times as you need to understand.

Four pupils use tiles to make a shape with a perimeter of 10cm. Who is correct?

DO:

Remember to use a ruler when drawing shapes and figures.

Part 1:

Questions 1 and 2 on page 249 of your textbook.

Check your answers below.

Part 2:

Worksheet 3 on pages 189-190 of your workbook.

Remember:

Shapes with the same perimeter do not have to use the same number of tiles.

Check the perimeter carefully after you have drawn each shape by counting the squares along the sides of your shape.

SEE:

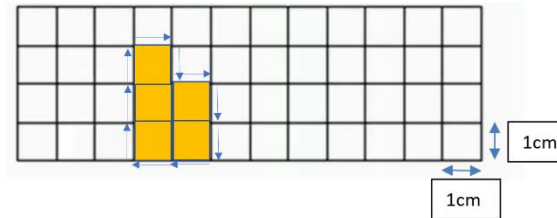
Check the solution on page 248 of your textbook.

[Watch the lesson video here.](#)

The images in the textbook are not to scale.

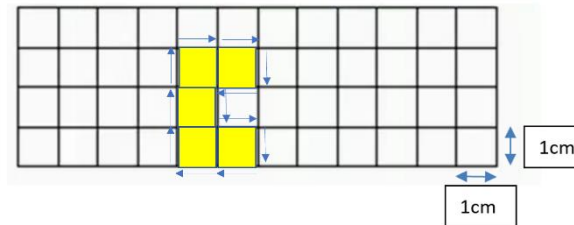
Use the measurements on the grid to help you measure the perimeter.

Amira:



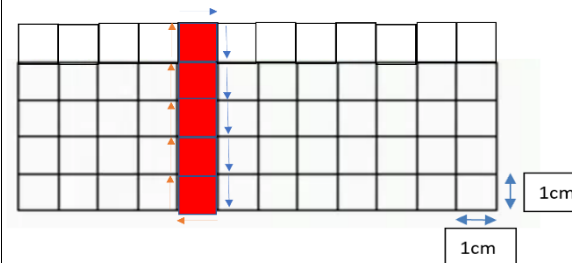
Perimeter = 10cm
Amira is correct.

Ravi:



Perimeter = 12cm
The perimeter is not 10cm.
Ravi is not correct.

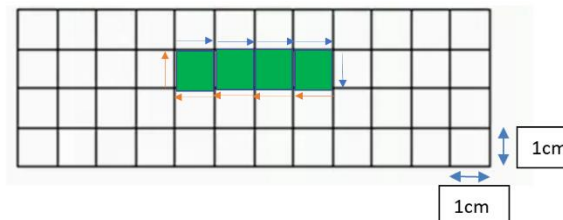
Charles:



Perimeter = 12cm
The perimeter is not 10cm.
Charles is not correct.

Another way to calculate the perimeter of Charles' rectangle is $6\text{cm} \times 2 = 12\text{cm}$.

Emma:



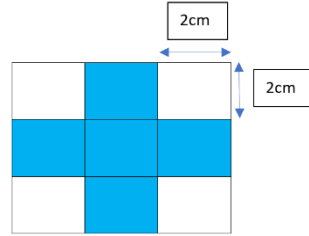
Perimeter = 10cm.
Emma is correct.

Another way to calculate the perimeter of Emma's rectangle is $5\text{cm} \times 2 = 10\text{cm}$.

THINK:

Look at page 250 of your textbook. Be sure to read all of the information as many times as you need to understand.

Sam, Lulu and Ruby have used different methods to measure the perimeter of the shape. What is wrong with their methods?



The images in the textbook are not to scale. Use the measurements on the grid to help you.

DO:

Remember to use a ruler when drawing shapes and figures.

Part 1:

Questions 1 and 2 on pages 252-253 of your textbook.

Check your answers below.

Part 2:

Worksheet 4 on pages 191-192 of your workbook.

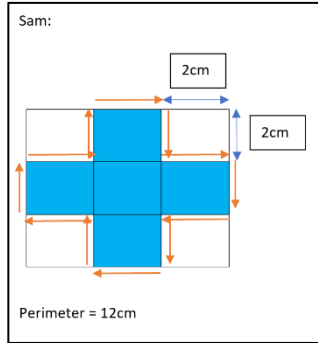
Remember:


Look carefully at the scale shown on the grid. How long is each square?

SEE:

Check the solution on page 251 of your textbook.

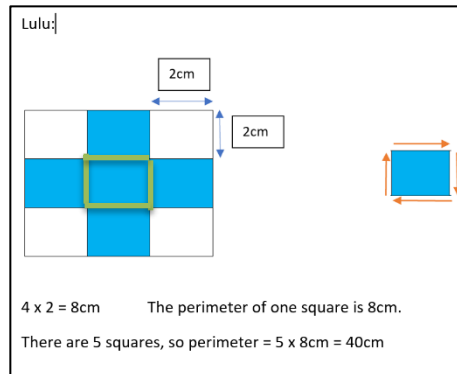
[Watch the lesson video here.](#)



Sam forgot that  is 2cm. He thought each square was 1cm.

The figure has 12 sides.
Perimeter = 12 x 2cm
= 24cm

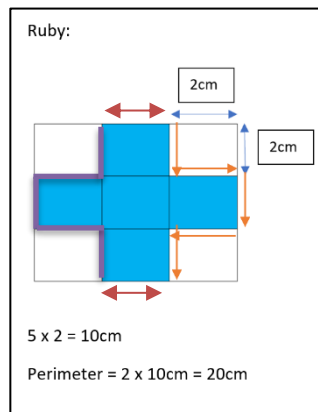
Sam could have counted in 2s to find the perimeter.






Lulu found the perimeter of one square, which is 8cm. Because there are 5 squares making up the figure, she found $5 \times 8\text{cm} = 40\text{cm}$.

The green lines are not part of the perimeter. Lulu included these lines.

The perimeter is $12 \times 2\text{cm} = 24\text{cm}$.



$5 \times 2\text{cm} = 10\text{cm}$ 
 $5 \times 2\text{cm} = 10\text{cm}$ 

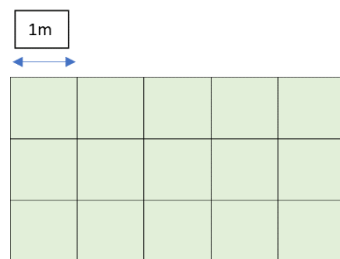
$2 \times 10\text{cm} = 20\text{cm}$ but this is not yet the perimeter. Ruby forgot about two sides of the figure. 

Ruby needs to add 4cm to 20cm to get the perimeter.
The perimeter is $20\text{cm} + 4\text{cm} = 24\text{cm}$.

DAY 4 RESOURCES:

THINK:

Look at page 256 of your textbook.
Be sure to read all of the information
as many times as you need to
understand.



Large tiles are used to form a
rectangle.

How far is the distance around the
rectangle? Compare it to the perimeter of a tile.

DO:

Remember to use a ruler when drawing shapes and figures.

Part 1:

Questions a-g on page 257 of your textbook.

Check your answers below.

Part 2:

Worksheet 6 on pages 195-196 of your workbook.

Remember:

1m stands for one metre. One metre is 100cm.

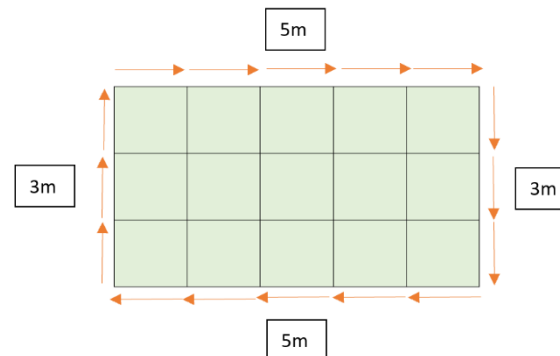
Just like with measuring perimeter in cm, you can count the squares along the sides of each shape to find the perimeter in m.

SEE:

Check the solution on page 256 of your textbook.

[Watch the lesson video here.](#)

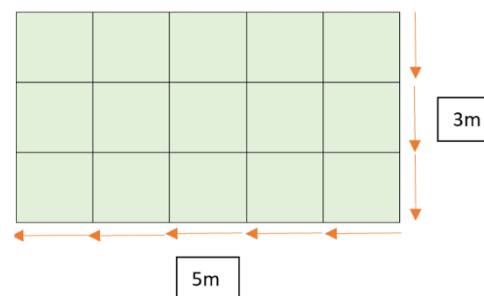
Method 1:



We could add the
distance of each
side together to find
the total distance
around the
rectangle.

$$\begin{aligned} \text{Perimeter} &= 5\text{m} + 3\text{m} + 5\text{m} + 3\text{m} \\ &= 16\text{m} \end{aligned}$$

Method 2:



We could find the
distance of the
length and the
width of the
rectangle.
Because the other
sides are the same
distance, we could
double it (x2) to find
the total distance
around all four sides.

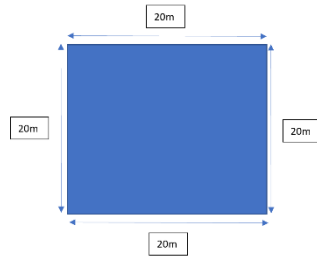
$$5\text{m} + 3\text{m} = 8\text{m}$$

$$\begin{aligned} \text{Perimeter} &= 2 \times 8\text{m} \\ &= 16\text{m} \end{aligned}$$

DAY 5 RESOURCES:

THINK:

Look at page 258 of your textbook. Be sure to read all of the information as many times as you need to understand.



Find the perimeter of the square.

DO:

Part 1:

Questions 1-4 on pages 260-261 of your textbook.

Check your answers below.

Part 2:

Worksheet 7 on pages 197-198 of your workbook.

Remember:

When adding larger numbers together, you might want to use the column method to help you.

If the shape is a rectangle or a square, you can still add the length of each side together to find the perimeter or you can try method 2, or even method 3 if it is a square.

SEE:

Check the solution on pages 258-259 of your textbook.

[Watch the lesson video here.](#)

Method 1:

To find the perimeter (the length around the figure), I could add the length of each side together.

$$\begin{aligned}\text{Perimeter} &= 20\text{m} + 20\text{m} + 20\text{m} + 20\text{m} \\ &= 80\text{m}\end{aligned}$$

Method 2:

To find the perimeter, I could calculate the length of two sides, and then multiply it by 2 because the other two sides are the same length.

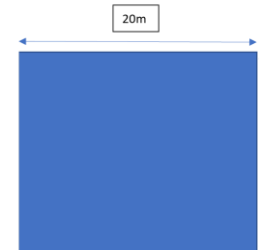
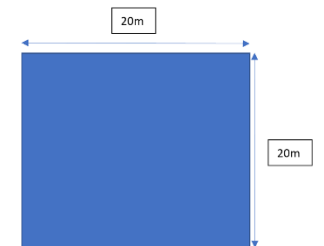
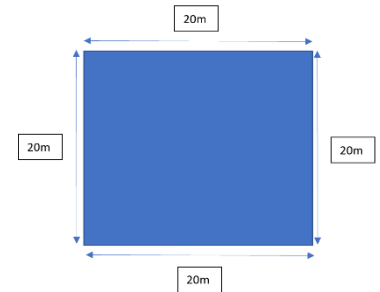
$$\begin{aligned}20\text{m} + 20\text{m} &= 40\text{m} \\ \text{Perimeter} &= 2 \times 40\text{m} \\ &= 80\text{m}\end{aligned}$$

Method 3:

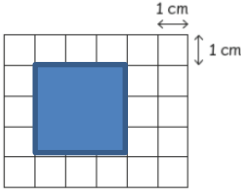
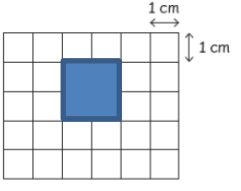
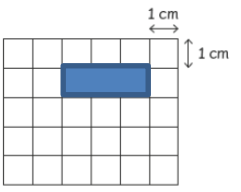
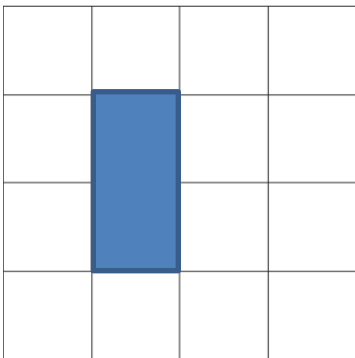
Because all four sides of a square are equal, all I need to know to find the perimeter of a square is the length of one side.

There are four sides and each side is 20m.

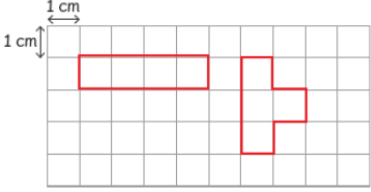
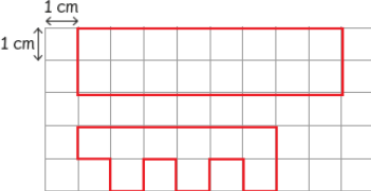
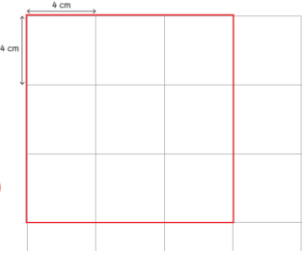
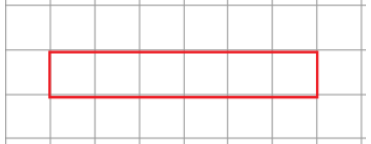
$$\begin{aligned}\text{Perimeter} &= 4 \times 20\text{m} \\ &= 80\text{m}\end{aligned}$$



ANSWERS – part 1:

| <u>Day 1</u> | <u>Day 2</u> | <u>Day 3</u> | <u>Day 4</u> | <u>Day 5</u> |
|---|--|---|---|---|
| <p>Page 243:</p> <ul style="list-style-type: none"> a. 4cm b. 8cm c. 14cm d. 16cm <p>Page 246:</p> <ul style="list-style-type: none"> a. 16cm b. 14cm c. 18cm d. 18cm | <p>Q1. Answers may vary but could look like this:</p>  <p>Q2. Answers may vary but could look like this:</p>   | <p>Q1. a) 8cm, b) 12cm, c) 16cm, d) 28cm</p> <p>Q2. Answers may vary but could look like this:</p>  | <p>Q1. b) 12m, b) 22m, c) 20m, d) 20m, e) Figure C has the same perimeter as figure D, f) figure A, g) figure B</p> | <p>Q1. 74m The perimeter of the field is 74m.</p> <p>Q2. 36m $4 \times 9 = 36m$ The perimeter of the vegetable plot is 36m.</p> <p>Q3. $15m + 12m + 10m + 8m = 45m$ The perimeter of the flower bed is 45m.</p> <p>Q4. a) 31m, b) 14m, c) 34m, d) 24m</p> |

ANSWERS – part 2 and deepening:

| <u>Day 1</u> | <u>Day 2</u> | <u>Day 3</u> | <u>Day 4</u> | <u>Day 5</u> |
|---|---|--|---|--|
| <p>Worksheet 1:</p> <p>Q1. a) 16cm, b) 20cm, c) 14cm</p> <p>Q2. a) 14cm, b) 14cm, c) 28cm, d) equal to</p> <p>Worksheet 2:</p> <p>Q1. a) 18cm, b) 24cm, c) 26cm</p> <p>Q2. a) 18cm, b) 26cm, c) 44cm, d) smaller than</p> | <p>Q1. Figures B, C and D may vary. The perimeter of each figure is 16cm.</p> <p>Q2. Answers may vary but could look like this:</p>  <p>Q3. Answers may vary but could look like this:</p>  | <p>Q1. a) 16cm, b) 24cm, c) 24cm, d) 24cm</p> <p>Q2. Answers may vary but could look like this:</p>  | <p>a) 14m, b) 16m, c) 16m, d) 22m, e) figure D, f) figure A, g) 0 h) Answers may vary but could look like this:</p>  | <p>Q1. a) 18m, b) 33m, c) 36m, d) 41m</p> <p>Q2. a) $4m + 7m + 4m + 7m = 22m$ The perimeter of the carpet is 22m. b) $8m + 8m + 8m + 8m = 4 \times 8m = 32m$ The perimeter of the platform is 32m. c) $12m + 20m = 32m$ $32 \times 2 = 64m$ The perimeter of the field is 64m.</p> |