Maths Planning and Ideas

Week Commencing: 11th May 2020

Year Group: 4

Mathematical Focus: Perimeter and Area

	Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Area of Learning	Multiplying and Dividing Problem Solving	Perimeter of a Rectangle	Perimeter of Rectilinear Shapes	Area – Counting Squares	Friday Maths Challenge
Activity	**Starter:** Times Table Rockstar *Battle of the Bands and Garage challenges have been set for Y4 children.* **Main:** White Rose Maths - Watch Summer Week 4 Lesson 1 https://whiterosemaths.com/homelearning/year-4/ You might want to pause it and make notes. Or even rewind and watch bits again. **Independent:** The questions below the plan can be completed by children independently.	**Starter:** Times Table Rockstar *Battle of the Bands and Garage challenges have been set for Y4 children.* **Main:** White Rose Maths - Watch Summer Week 4 Lesson 2 https://whiterosemaths.com/homelearning/year-4/ You might want to pause it and make notes. Or even rewind and watch bits again. **Independent:** The questions below the plan can be completed by children independently.	**Starter:** Times Table Rockstar *Battle of the Bands and Garage challenges have been set for Y4 children.* **Main:** White Rose Maths - Watch Summer Week 4 Lesson 3 https://whiterosemaths.com/homelearning/year-4/ You might want to pause it and make notes. Or even rewind and watch bits again. **Independent:** The questions below the plan can be completed by children independently.	**Starter:** Times Table Rockstar *Battle of the Bands and Garage challenges have been set for Y4 children.* **Main:** White Rose Maths - Watch Summer Week 4 Lesson 4 https://whiterosemaths.com/homelearning/year-4/ You might want to pause it and make notes. Or even rewind and watch bits again. **Independent:** The questions below the plan can be completed by children independently.	**Starter:** Times Table Rockstar *Battle of the Bands and Garage challenges have been set for Y4 children.* **Main:** White Rose Maths - Watch Summer Week 4 Lesson 5 – Daily Challenge https://whiterosemaths.com/homelearning/year-4/ Good luck!

Answers can be found here: https://resources.whiterosemaths.com/wp-content/uploads/2020/04/Lesson-1-Answers-Correspondence-problems-2019.pdf No peeking until after you have had a go.	Answers can be found here: https://resources.whiterosemaths.com/wp-content/uploads/2020/04/Lesson-2-Answers-Perimeter-of-a-rectangle-2019.pdf No peeking until after you have had a go.	Answers can be found here: https://resources.whiterosemaths.com/wp-content/uploads/2020/04/Lesson-3-Answers-Perimeter-of-rectilinear-shapes-2019.pdf No peeking until after you have had a go.	Answers can be found here: https://resources.whiterosemaths.com/wp-content/uploads/2020/04/Lesson-4-Answers-Counting-squares-2019.pdf No peeking until after you have had a go.	

LC: Can you solve multiplication and division problems?

Correspondence problems

White Rose Maths

1 A canteen has 2 types of bread and a choice of 3 sandwich fillings.

Bread	Fillings
white	cheese
brown	tuna
	chicken

a) List the different sandwiches that can be made.

One has been done for you.

cheese on white

_____

_____

_____

b) Complete the multiplication to represent the number of different combinations of bread and filling.

[ ] × [ ] = [ ]

Complete the sentence.

There are [ ] combinations.

c) How many combinations would there be if there were 4 choices of sandwich filling?

[ ]

2 A pizzeria offers a choice of bases and toppings.

Pizza base	Toppings
deep pan	mushrooms
thin	chicken
	onion
	peppers
	sweetcorn

Complete the multiplication to work out how many different combinations of pizza there are.

[ ] × [ ] = [ ]

Complete the sentence.

There are [ ] combinations of pizza.

3 Mo visits the funfair.

He buys a ticket that allows him to choose 1 ride and 1 game at the fair.

Rides
Big dipper
Dodgems
Carousel

Games
Hook-a-duck
Basketball
Coconut shy
Lucky dip
Test-your-strength

There are 8 different possible choices of rides and games.

a)

Is Mo correct? _____

Explain your answer.

_____

_____

b) List all the different choices Mo can make.

_____

_____

_____

_____

Mo can make ☐ different choices.

④ Aisha has 3 headbands and 5 hair slides.

Kim has 2 headbands and 6 hair slides.

Who has more choices of combinations for wearing one headband and 1 slide?

_____ has more choices.

Talk about it with a partner.

⑤ Here are the activity choices available at Summer Camp.

Sport	Arts and crafts	Outward bound
football	painting	wall climbing
tennis	pottery	kayaking
golf	mosaics	abseiling
	origami	

Each child is allowed to choose 3 activities per day: 1 sport, 1 arts and crafts and 1 outward bound.

a) How many activity combinations are there?

☐

b) Due to a flooded pitch, football is cancelled.

How many combinations are now possible?

There are ☐ combinations.

⑥ Tom and Esther are building a snowman.

They have a choice of 5 hats, 4 scarves and 2 pairs of gloves to dress their snowman.

How many different combinations are possible?

☐ × ☐ × ☐ = ☐

There are ☐ combinations.

12.05.2020

LC: Can you calculate the perimeter of a rectangle?

Perimeter of a rectangle

1 Work out the perimeter of each rectangle.

a)

1 cm

1 cm

☐ cm + ☐ cm + ☐ cm + ☐ cm = ☐ cm

b)

1 cm

1 cm

☐ cm + ☐ cm + ☐ cm + ☐ cm = ☐ cm

c)

1 cm
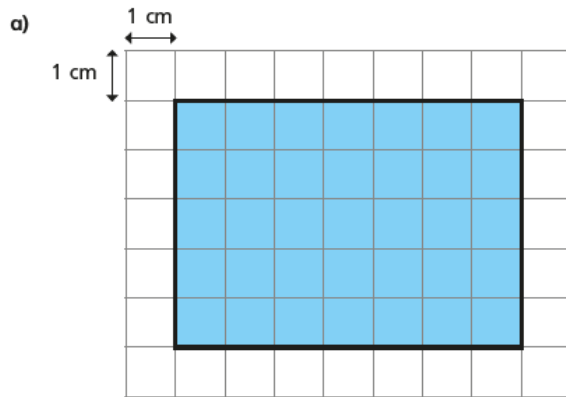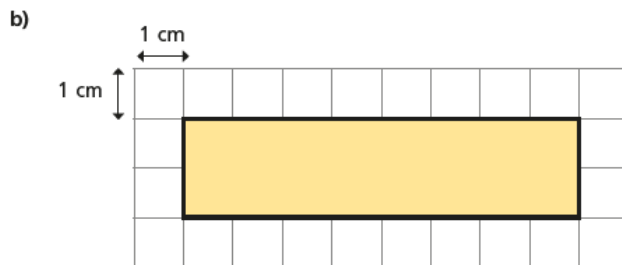
1 cm
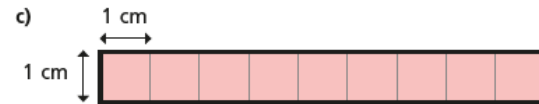
☐ cm + ☐ cm + ☐ cm + ☐ cm = ☐ cm

2 Work out the perimeter of the rectangles.

a)

7 cm

4 cm   4 cm

7 cm

☐

b)

12 cm

3 cm

☐

c)

4 cm

9 cm

☐

d)

2 km

500 m

☐
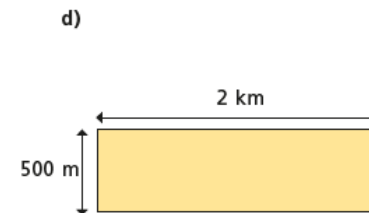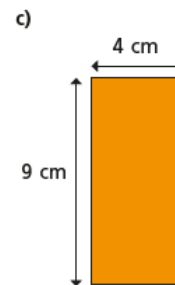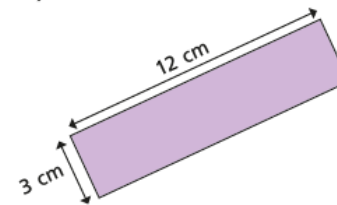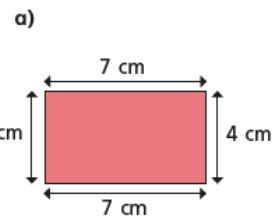
3 Tommy is working out the perimeter of some rectangles.

8 cm

5 cm

8 cm + 5 cm = 13 cm
13 cm × 2 = 26 cm
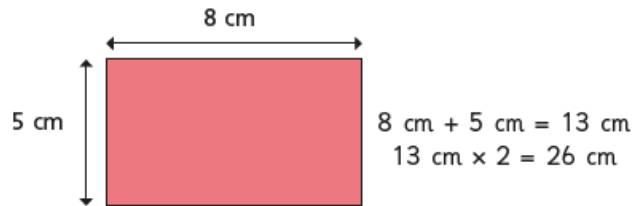
Use Tommy's method to find the perimeter of these rectangles.

a)

5 cm

4 cm

[ ] cm + [ ] cm = [ ] cm

[ ] cm × 2 = [ ] cm

b)

10 cm

5 cm
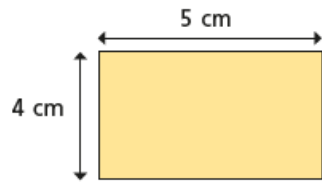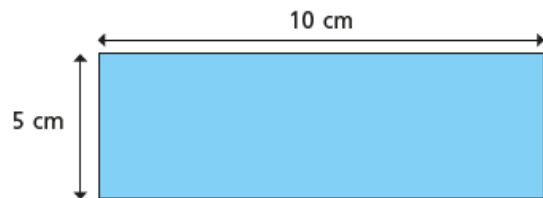
[ ] cm + [ ] cm = [ ] cm

[ ] cm × 2 = [ ] cm

4 Each lolly stick is 8 cm long.

Find the perimeter of the shape.

[ ]
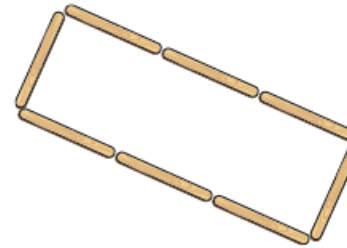
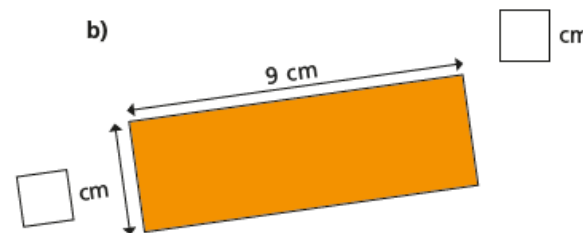**5** Each of these rectangles has a perimeter of 24 cm.

Work out the missing lengths and label the diagrams.

a)

10 cm

[ ] cm

c)

5 cm

[ ] cm

b)

9 cm

[ ] cm
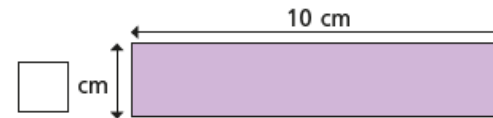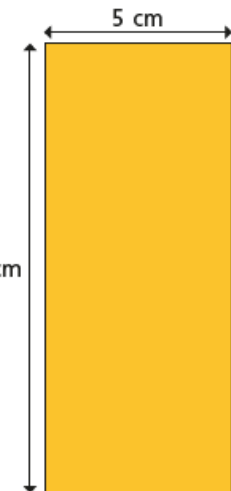
What do you notice?

Find any other rectangles that have the same perimeter.

13.05.2020

LC: Can you calculate the perimeter of rectilinear shapes?
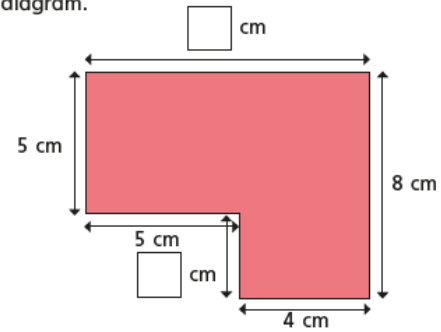
Perimeter of rectilinear shapes

1 The length of each square on the grid is 1 cm.

Work out the perimeter of the shapes.
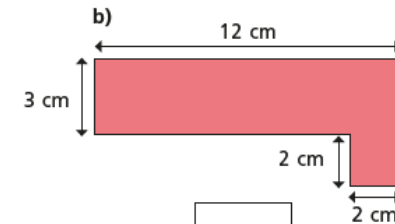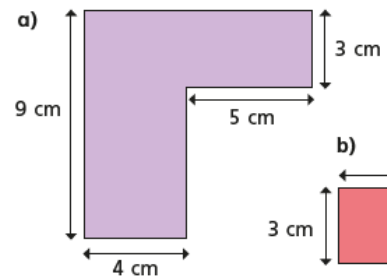
a)

b)

2 Work out the perimeter of the shape.

10 cm

5 cm

8 cm

3 cm

7 cm

3 cm
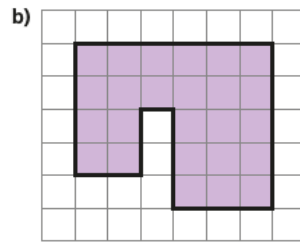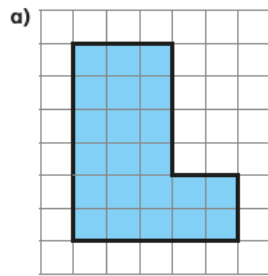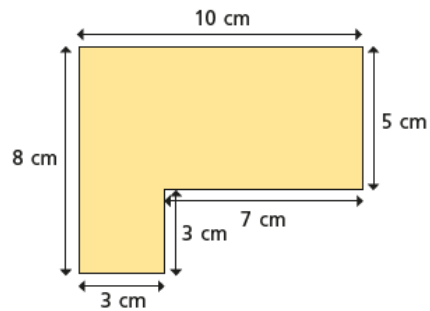
3 a) Work out the missing lengths and label them on the diagram.

☐ cm

5 cm

8 cm

5 cm

☐ cm

4 cm

b) What is the perimeter of the shape?

4 Work out the perimeter of each shape.

a)

3 cm

9 cm

5 cm

b)

12 cm

3 cm

4 cm

2 cm

2 cm

5 Mo puts two 5 cm by 3 cm rectangles next to each other.

5 cm   5 cm

3 cm
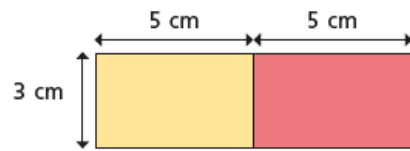
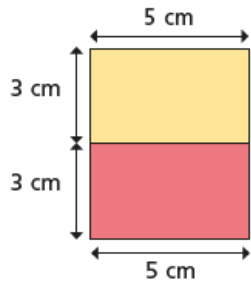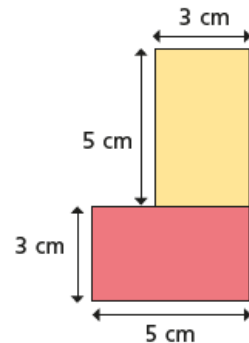> The perimeter of each small rectangle is 16 cm, so the perimeter of my larger rectangle must be 2 × 16 cm = 32 cm.

a) Is Mo correct? _____

Work out the perimeter of the larger rectangle to check your answer.

b) Mo puts the rectangles together in different ways.
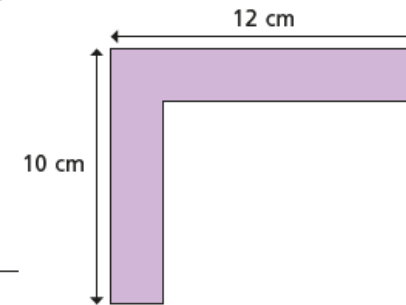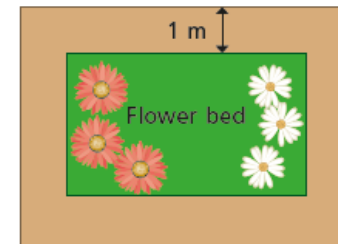
Work out the perimeter of each large shape.

5 cm
3 cm
3 cm
5 cm

3 cm
5 cm
3 cm
5 cm

6 Dani thinks there isn't enough information to work out the perimeter of the shape.

12 cm

10 cm

Is Dani correct? _____

Explain your answer.

7 A rectangular flower bed is 5 m long and 3 m wide.

The path around the flower bed is 1 m wide.

1 m

Flower bed

a) What is the perimeter of the flower bed?

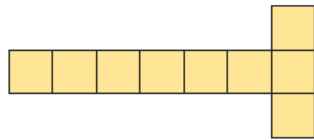b) What is the perimeter of the outside of the path?

<u>14.05.2020</u>

<u>LC: Can you calculate area by counting squares?</u>

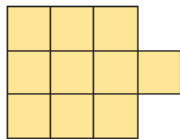### Counting squares

White Rose Maths

1. Count the squares in each shape to find the area.
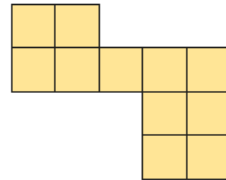
A

The area is ☐ squares.

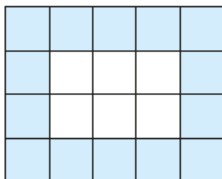B   C

The area is ☐ squares.   The area is ☐ squares.

Which shape has the greatest area? _____

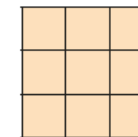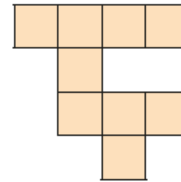2. What is the area of the shaded part of the shape?

The area is ☐ squares.

3. Here is a kitchen tile.

a) What area of the tile is blue?   ☐ squares

b) What area of the tile is white?   ☐ squares

c) What is the total area of the tile?   ☐ squares

4. These two shapes are made up of squares of the same size.

Jack: These two shapes have the same area.

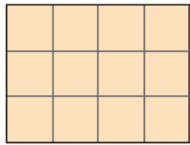Rosie: The first shape is bigger as it takes up more space.

Who is correct? _____

Explain how you know.

_____
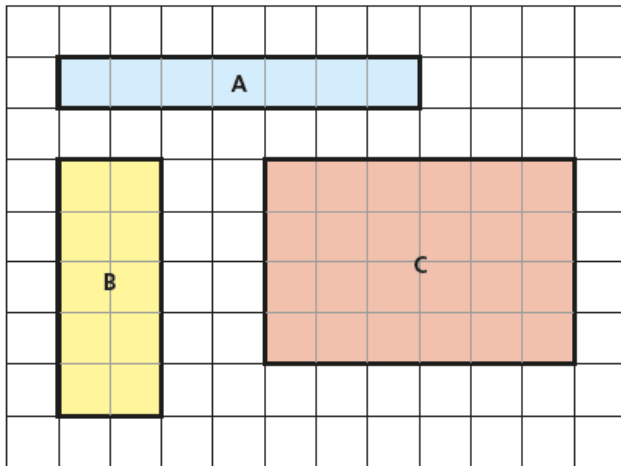
_____

5 Here is a rectangle.

a) The rectangle has ☐ rows and ☐ columns.

b) What is the area of the rectangle? ☐ squares

c) How did you work out the area?
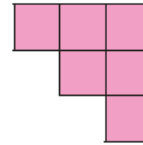
6 Find the area of each rectangle.

A = ☐ squares   B = ☐ squares   C = ☐ squares
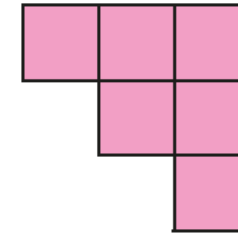
7 Nijah and Eva are making shapes.

They each use 6 squares.

Nijah's shape

Eva's shape

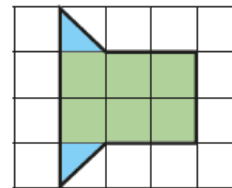The area of Nijah's shape is equal to the area of Eva's shape.
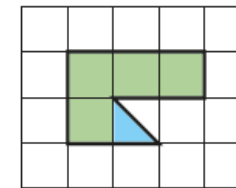
Is this true or false? _____

How do you know?

_____

_____

8 What is the area of each shape?

area = ☐ squares   area = ☐ squares

Where can I complete further work?

Twinkl – Subscription service used by schools is offering a free premium service for teachers, parents and children to use whilst schools are closed. Enter the code **UKTWINKLHELPS** for access to worksheets, PowerPoints and interactive games to support all areas of learning.

Classroom Secrets – Free Maths, Reading and Grammar home learning packs and interactive resources for all ages.

White Rose Maths – Free Maths home learning resources for all ages. Watch the videos and try the questions.

Primary Stars – Free Maths home learning packs for Year 1 and 2.

BBC Bitesize Primary – Free learning resources available for KS1 and KS2 across all subjects.

I See Maths – Free daily home maths lessons hosted by Gareth Metcalfe. Follow the link for videos, information and resources.

Top Marks – Free educational resources and games for English and Maths.

ICT Games – Free educational resources and games for English and Maths.