Monday

Maths - Correspondence Problems (page 2)

Correspondence problems involve finding the number of possible combinations for different groups of items. The combinations are every possible choice that could be made if you were to pick one item out of each group.

Starter	Main	
1. Prawn cocktail 2. Soup	 Chicken salad Steak baguette Lasagne 	

For example, the choices for this menu would be prawn cocktail and chicken salad; prawn cocktail and steak baguette; prawn cocktail and lasagne; soup and chicken salad; soup and steak baguette; soup and lasagne. This means that there are a total of 6 different combinations of meals.

To find the total number of combinations without having to write out each option, you can use multiplication. Multiply the number of starters by the number of mains to find the total number of combinations $(2 \times 3 = 6)$.

For this menu, you would calculate 3 x 4 x 2 for the total number of options in each group. This means there are a total of 24 combinations.

Starter	Main	Dessert	
1. Prawn cocktail 2. Soup 3. Melon	 Chicken salad Steak baguette Lasagne Risotto 	1. Ice Cream 2. Fruit Salad	

Question 1 – This question shows a table with two groups of options. Children must look at the calculation that has already been completed to identify and correct the mistake.

Sticker colour		our	Sticker design
			smiley face
orange	yellow	silver	books
			animals
			star
purple green		een	flag
			cake

In column 1 there are 5 options and in column 2 there are 6 options. The calculation used in the questions is an addition when a multiplication is needed.

The correct answer is $5 \times 6 = 30$ as there are 5 different colours and 6 different designs of stickers.



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Maths - Correspondence Problems (page 2)

Question 2 – For this question, children need to calculate the number of options for each of the shops so that they can identify the odd one out.



A has a total of 32 combinations as shelf 1 has four options, shelf 2 has four options and shelf 3 has two options. The calculation would be $4 \times 4 \times 2$.

B has a total of 32 combinations as shelf 1 has two options, shelf 2 has eight options and shelf 3 has two options. The calculation would be $2 \times 8 \times 2$.





C has a total of 24 combinations as shelf 1 has eight options, shelf 2 has three options and shelf 3 has one option. The calculation would be $8 \times 3 \times 1$.

The odd one out is C because $8 \times 3 \times 1 = 24$. A and B create 32 combinations.

Question 3 – This question requires children to calculate the answer from the clues. In his explanation, Rupert gives clues to help children reach the answer. He tells us how many of each card he has in his collection (6 normal, 4 shiny and 5 legendary) which children must use to complete the calculation to identify whether Rupert's statement is correct. This questions requires a more detailed explanation so children must also write a sentence to explain their answer.

The correct answer is Rupert is correct because $6 \times 5 \times 4 = 120$ combinations which is more than 100.



Tuesday

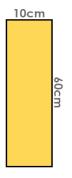
Maths - Perimeter of a Rectangle (page 4)

The **perimeter** is the distance around the edge of a shape. It is a measurement of length so is often measured in millimetres (mm), centimetres (cm) or metres (m). To find the perimeter of a shape, add together the lengths of all its sides.



This rectangle has a perimeter of 10cm as 1cm + 4cm + 1cm + 4cm = 10cm.

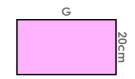
Question 1 – This question is an open-ended problem solving question. This is to allow children the freedom to explore different possible answers. Children are asked to give different possible measurements for each letter whilst making sure the they keep the total perimeter below 420cm. They may need to experiment with different possibilities for the measurements before finding a correct answer. Children may also need support with choosing a starting point.

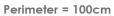


For this question, the yellow shape has the measurements already given, meaning that the perimeter can simply be calculated from the given measurements giving a good starting point.

Perimeter = F

The pink shape has a total perimeter and one measurement given meaning some subtracting is needed to calculate the missing lengths, also providing a good starting point.





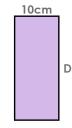


The blue shape is a square, so children may need to be reminded that this shape has 4 sides of equal length. Children must choose a length for this shape that will keep the total perimeter under the given total.

Perimeter = C

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The purple shape has one given measurement that is the shorter side. Children will need to be reminded to keep the missing measurement greater than the one given whilst also remembering to keep the total perimeter in mind.



Perimeter = E



Tuesday

Maths - Perimeter of a Rectangle (page 4)

There are various answers for this question, two examples are given below for the possible values of each letter.

Letter	Missing Value
A	20cm
В	20cm
С	80cm
D	40cm
E	100cm
F	140cm
G	30cm

Letter	Missing Value
Α	15cm
В	15cm
С	60cm
D	50cm
E	120cm
F	140cm
G	30cm



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Wednesday

Maths - Perimeter of Rectilinear Shapes (page 6)

The **perimeter** is the distance around the edge of a shape. It is a measurement of length so is often measured in millimetres (mm), centimetres (cm) or metres (m). To find the perimeter of a shape, add together the lengths of all its sides.

A **rectilinear shape** is a polygon where all lines meet at a right angle. For example:

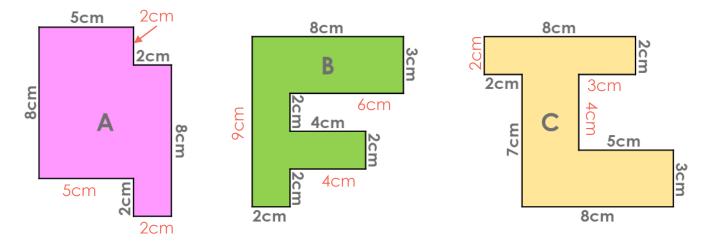


A **polygon** is a 2D shape made of straight lines.

A **right angle** is an angle that measures exactly 90 degrees and is equal to a quarter turn.

Question 1 – This question asks children to match each **rectilinear shape** to its correct **perimeter**. Children must make sure they include all of the sides when they add the lengths together to find the **perimeter**. There are some lengths that are not given, so children will need to calculate these from the information given on other lengths as the shapes are not drawn to scale.

The missing lengths and correct answers are shown below. These missing lengths can be calculated from the other information on each shape.



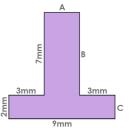
Shape A = 34cm; Shape B = 42cm; Shape C = 44cm



Wednesday

Maths - Perimeter of Rectilinear Shapes (page 6)

Question 2 – For this question, children need to identify which statements correctly describe the shape given. Children will need to calculate the missing lengths from the information given and then the perimeter. Children then need to mark the statements that are correct.

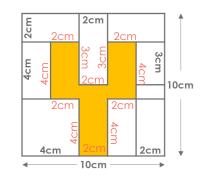


Side A equals 3mm; side B = 7mm and side C = 2mm. This means the total perimeter is 36mm.

The correct statements are B and D.

Question 3 – This question requires children to look at the given measurements and use this to find the perimeter of the rectilinear shape that has been shaded. The length of each side and the answer is shown below.

Perimeter = 34cm





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Thursday

Maths - Counting Squares (page 8)

Question 1 – This is an open-ended question for children to explore. They must count the **area** of the driveway on the square grids that they have been given. **Area** is the measurement of the surface of a 2D shape. In Year 4, area is calculated by counting squares and is measure in squares.

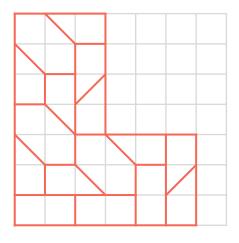
When counting out the area, children must make sure that they keep the driveway a **rectilinear shape.** A **rectilinear shape** is a **polygon** where all lines meet at a **right angle**. For example:

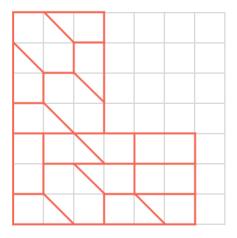


A **polygon** is a 2D shape made of straight lines and a **right angle** is an angle that measures exactly 90 degrees and is equal to a quarter turn.

Children must then use the 3 brick types to fill in the whole driveway. The bricks can be rotated and turned to fill the spaces. Children can use each brick type as many times as needed as long as there is at least one of each.

There are several answers to this problem. Two examples are given below.







Friday

Maths – Area

Follow the link to watch the learning video clip on area and counting squares. As the video progresses, it will give questions to answer. Pause the video and answer the questions. Answers to the questions are given on the website. https://classroomsecrets.co.uk/free-consolidation-of-steps-1-2-year-4-area-learning-video-clip/

