

Measurement (perimeter and area)

HERE'S THE MATHS

The focus for the week is on measurement and calculation of perimeter and area. Rules to find the perimeter: $P = 2(a + b)$ and area: $A = a \times b$ are used to find perimeter and area and also to work out unknown lengths from known information, e.g. if side a is 3 cm and side b is 4 cm, the perimeter is 14 cm. Encourage your child to use the correct units for area, which is measured in square units: cm^2 or m^2 .

ACTIVITY

Player A	1 20 cm^2	2 36 cm^2	3 40 cm^2	4 100 cm^2	5 90 cm^2	6 16 cm^2
Player B	1 50 cm^2	2 30 cm^2	3 80 cm^2	4 18 cm^2	6 60 cm^2	6 48 cm^2

What to do

- The grid shows the areas of different rectangles.
- Players choose which row they will play.
- Take turns to roll the dice to decide which box to work out.
- Suggest **two** possible sets of lengths of the sides for the rectangle.
- If successful, cover the square with a counter.
- If a number is rolled that is already covered, miss that go.
- The winner is the first person to cover every square in their row first.

You will need:

- pencil and paper
- 12 counters or coins
- two 1–6 dice

What is the perimeter of a 16 cm square?

What is the area of an 8 cm square?

Perimeter of rectangle = 50 cm and the length of one side is 15 cm . Work out the length of the other side.



Year 5 Maths Newsletter 8



Date: _____

Name: _____

MATHS TOPICS

These are the maths topics your child will be working on during the next three weeks:

- Multiplication and division
- Percentages (including fractions and decimals)
- Measurement (perimeter and area)

KEY MATHEMATICAL IDEAS

During these three weeks your child will be learning to:

- use a written method to calculate $\text{TO} \times \text{TO}$
- learning to convert fractions and decimals to percentages
- calculate the area of rectangles, in cm^2 and m^2 , using the rule $A = a \times b$.

TIPS FOR GOOD HOMEWORK HABITS

When your child has finished their homework, discuss with them what they have learnt and whether they found it easy or hard.

Multiplication and division

HERE'S THE MATHS

The focus this week is on developing methods to calculate $TO \times TO$, using an appropriate method, including the formal written method. Your child should develop the habit of estimating the answer before beginning the calculation to make sure that their answer is sensible. They should always look to see if a mental method is possible. For example, to calculate 67×34 , first round to 70×30 to give an estimated answer of 2100. Then set out the calculation as shown.

$$\begin{array}{r} 67 \\ \times 34 \\ \hline 2628 \quad (67 \times 4) \\ \underline{2010} \quad (67 \times 30) \\ 2278 \end{array}$$

ACTIVITY

What to do

- Open each book to give four 2-digit page numbers, e.g. 20 and 21, and 32 and 33.
- Both calculate the possible $TO \times TO$ combinations using one page from each book, i.e. 20×32 , 20×33 and 21×32 , 21×33 .
- Do this as efficiently as possible, looking for mental methods and using the result of one calculation to work out another.
- Compare and discuss your strategies and answers.
- Repeat with new page selections.
- Continue for 10 minutes.

You will need:

- 2 books with about 100 pages
- pencil and paper

Variation

- To make it easier, open one book and multiply the two consecutive page numbers.

QUESTIONS TO ASK

What is 80×40 ?

What is $\pounds 70 \times 60$?

Can you estimate the answer to 58×42 ?

What method would you use to multiply 49×19 ?

How many pairs of numbers can you suggest that, when multiplied, give an answer of 400?

Percentages (including fractions and decimals)

HERE'S THE MATHS

This week the focus is on percentages. Your child needs to understand that 'per cent' is 'number of parts per hundred' and to recognise percentage equivalents of fractions.

The most important equivalents to know are $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, then tenths and, if possible, twentieths.

ACTIVITY

Percentages

5%	90%	40%	80%	30%
95%	10%	100%	45%	70%
60%	20%	15%	65%	85%
35%	75%	55%	25%	50%

You will need:

- 20 counters or coins
- timer (or phone with timer)

Fractions answers

$\frac{1}{20}$	$\frac{9}{10}$	$\frac{2}{5}$	$\frac{4}{5}$	$\frac{3}{10}$
$\frac{19}{20}$	$\frac{1}{10}$	1	$\frac{9}{20}$	$\frac{7}{10}$
$\frac{3}{5}$	$\frac{1}{5}$	$\frac{3}{20}$	$\frac{13}{20}$	$\frac{17}{20}$
$\frac{7}{20}$	$\frac{3}{4}$	$\frac{11}{20}$	$\frac{1}{4}$	$\frac{1}{2}$

What to do

- Cover the fraction grid.
- Take turns to choose one of the squares and change the percentage into the simplest fraction.
- Time how long it takes to complete the grid and try to improve your time.

QUESTIONS TO ASK

What does 'per cent' mean?

What is 0.57 as a percentage?

Change 35% to a fraction.