

# Measurement (perimeter and area)

## HERE'S THE MATHS

Your child is learning to measure the perimeter of rectangles and squares in centimetres and metres. They are introduced to the rule  $P = 2(a + b)$  where  $P$  is the perimeter and  $a$  and  $b$  are the lengths of the sides. The concept of area is introduced by counting squares, leading on to multiplying the number of squares in a row by the number of columns.

## ACTIVITY

1 12 cm	2 36 cm	3 100 cm
4 48 cm	5 60 cm	6 24 cm

### You will need:

- 1–6 dice
- pencil and paper

### What to do

- The grid shows different perimeters of rectangles.
- Roll the dice to decide which perimeter to investigate.
- Both sketch as many different rectangles for that perimeter as possible.
- Compare sketches.
- Roll the dice to try another perimeter.
- Play for 10 minutes.

### Variation

- Find the area of the different rectangles.

## QUESTIONS TO ASK

What is the perimeter of a 6 cm square?

Fencing costs £10 per metre. How much does it cost to fence a 20 m square?

The perimeter of a rectangle is 36 m and the length equals twice the width. What is the length and width?

Explain the rule  $P = 2(a + b)$ .

What is area? How is it measured?



# Year 4 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
- Decimals
- Measurement (perimeter and area)

## KEY MATHEMATICAL IDEAS

During these three weeks your child will be learning to:

- solve word problems involving multiplication and reason mathematically
- divide numbers by 10 and by 100 to give tenths and hundredths
- measure and calculate the perimeter of 2-D shapes.

## TIPS FOR GOOD HOMEWORK HABITS






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

# Multiplication and division

## HERE'S THE MATHS

The focus this week is on multiplication of HTO x O. Your child should be familiar with a variety of methods, including the formal written method. They should also appreciate that it is not always the best method to use. Remind them to estimate first and check answers to calculations afterwards.

## ACTIVITY

 104p	 189p	 173p	 146p	 168p
 110p	 128p	 161p	 184p	 149p

### What to do

- Take turns to choose a cake to buy.
- Choose a card to find out how many slices of that cake you will buy.
- Work out the calculation using a mental or written method as appropriate.
- Change your answer from pence to pounds.
- Check each other's calculations.
- Cover that cake with a counter or coin.
- Continue until each type of cake has been purchased.

### You will need:

- pack of playing cards with picture cards removed
- 10 small counters or coins

## QUESTIONS TO ASK

What is  $£1.99 \times 5$ ?

What is  $£1.49 \times 7$ ?

Real cafes would probably not set their prices like this. Suggest new prices.

What is  $£0.99 \times 9$ ?

# Decimals

## HERE'S THE MATHS

This week's focus is decimal numbers. Help your child to establish that the correct way of reading the numbers after the decimal point is individual digits so 1.23 is read as 'one point two three', never as 'one point twenty three'. They are learning to divide numbers by 10 and 100, leading to decimals with up to two decimal places.

## ACTIVITY

32	10	43	6	78
9	21	65	71	4
26	59	7	18	98
2	80	38	52	3
49	19	88	91	44
35	5	57	63	25

### You will need:

- coin
- counters in two

### What to do

- Take turns to choose a number on the grid.
- Toss the coin – for tails divide by 10, for heads divide by 100 (i.e. T for tails and tens, and H for heads and hundreds).
- Say the answer. If it is correct, cover it with a counter of your colour.
- If your answer is incorrect, leave it uncovered to be played again.
- The winner has the most counters.

## QUESTIONS TO ASK

What happens when you divide a number by 10?

What happens when you divide a number by 100?

Express  $\frac{37}{100}$  as a decimal.

Which is bigger,  $\frac{6}{10}$  or  $\frac{59}{100}$ ?

Express 0.81 as a fraction.