Maths Targets for pupils in Year 4

A booklet for parents

Help your child with mathematics

For additional information on the agreed calculation methods, please see the school website.

ABOUT THE TARGETS

These targets illustrate what **most** children will have been taught by the **end of** Year 4. However, some children may need consolidation of earlier objectives, therefore greater focus will be given to these. Some children will have exceeded these targets, and will be working to more challenging objectives.

THE TARGETS

Using and Applying

To be able to solve word problems using all four operations.
To problem solve number and word problems using negative numbers and increasingly large positive numbers.
To solve one-step and two-step problems involving numbers or measure (money, time, length, perimeter, area) using all four operations.
To consolidate and practise aspects of number, and shape and space through puzzles and problem-solving activities.

Number - number and place value

To recognise, order and compare numbers up to 10,000.
To count in single digit multiples as well as 10, 25, 50, 100 and 1000.
To recognise place value of four digit numbers.
To round up or down to the nearest 10 or 100.
To add and subtract using the formal written method up to four digits.
To mentally add two digit numbers.
To understand the importance of the inverse and mentally estimate feasible answers to check answers.
To be able to recall multiplication and division facts for all tables up to 12x12.
To mentally perform multiplication/division calculations accurately including multiplying by 0 and diving by 1.
To multiply and divide 2/3 digit numbers by a 1 digit number using formal written methods and interpret remainders accurately as integers.
To identify and name fractions.
To find equivalent fractions.
To reduce fractions to their simplest form.
To add and subtract two fractions with common denominators within one whole.
To compare and order decimal numbers up to two decimal places.
To recognise and write decimal equivalents of fraction ¼, ½ and ¾ and tenths and hundredths.

Number - fractions (including decimals)

Recognise and show, using diagrams, families of common equivalent fractions

Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10

Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number

Add and subtract fractions with the same denominator

Recognise and write decimal equivalents of any number of tenths or hundreds

Recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$

Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths

Round decimals with 1 decimal place to the nearest whole number

Compare numbers with the same number of decimal places up to 2 decimal places

Solve simple measure and money problems involving fractions and decimals to 2 decimal places

Shape, Space and Measure

To recognise, describe and make 2D and 3D shapes.

To identify right angles and to identify when an angle is greater or less than a right angle.

To recognise that two right-angles make a half-turn and four make a complete turn.

To measure, compare, lengths, mass , volume/capacity and time

To measure the perimeter of simple 2D shapes.

To tell and write the time for an analogue clock (roman numerals/12-hr/24-hr), estimating time to the nearest minute and calculating time intervals

Statistics

To read, interpret and present data using pictograms and bar charts with scales.

To solve problems using information presented in pictograms, bar charts and tables.

Parents play a vital role in children's mathematical development. Many key mathematical skills can be supported at home through everyday activities such as:

Telling the time

Weighing for cooking

Measuring for craft and DIY

Using money and playing board games.

Many of these skills are the "real-life" maths that we use every day, and are more effectively learned in the setting in which we use them

Fun activities to do at home

Dicey tens

For this game you need a 1–100 square (a snakes and ladders board will do), 20 counters or coins, and a dice.

- Take turns.
- Choose a two-digit number on the board e.g. 24.
- Roll the dice. If you roll a 6, miss that turn.
- Multiply the dice number by 10, e.g. if you roll a 4, it becomes 40.
- Either add or subtract this number to or from your two-digit number on the board,
  - e.g. 24 + 40 = 64.
- If you are right, put a coin on the answer.
- The first to get 10 coins on the board wins.

Number game 1

You need about 20 counters or coins.

- Take turns. Roll two dice to make a two-digit number, e.g. if you roll a 4 and 1, this could be 41 or 14.
- Add these two numbers in your head. If you are right, you win a counter. Tell your partner how you worked out the sum.
- The first to get to 10 counters wins

Now try subtracting the smaller number from the larger one.

Number game 2

Put some dominoes face down

- Shuffle them.
- Each choose a domino.
- Multiply the two numbers on your domino.
- Whoever has the biggest answer keeps the two dominoes.
- The winner is the person with the most dominoes when they have all been used.

Number game 3

Use three dice.

If you have only one dice, roll it 3 times.

- Make three-digit numbers, e.g. if you roll 2, 4 and 6, you could make 246, 264, 426,462, 624 and 642
- Ask your child to round the three-digit number to the nearest multiple of 10. Check whether it is correct, e.g. 76 to the nearest multiple of 10 is 80.
  - 134 to the nearest multiple of 10 is 130.
  - (A number ending in a **5** always **rounds up**.)
- Roll again. This time round three-digit numbers to the nearest 100.

Dicey division

You each need a piece of paper. Each of you should choose five numbers from the list below and write them on your paper.

5 6 8 9 12 15 20 30 40 50

- Take turns to roll a dice. If the number you roll divides exactly into
  - one of your numbers, then cross it out, e.g. you roll a 4, it goes into
  - 8, cross out 8.
- If you roll a 1, miss that go. If you roll a 6 have an extra go.
- The first to cross out all five of their numbers wins.

Tables

Practise the 3x, 4x and 5x tables. Say them forwards and backwards.
Ask your child questions like:

What are five threes?	What is 15 divided by 5?
Seven times three?	How many threes in 21?

Out and about

- Choose a three-digit car number, e.g. 569.
- Make a subtraction from this, e.g. 56 – 9.
- Work it out in your head. Say the answer.
- If you are right, score a point.
- The first to get 10 points wins.
- **H569 TPK**

Pairs to 100

This is a game for two players**.**

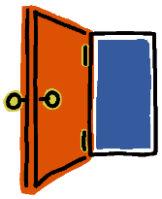
- Each draw 10 circles. Write a different two-digit number in each circle – but not a ‘tens’ number (10, 20, 30, 40…).
- In turn, choose one of the other player’s numbers.

- The other player must then say what to add to that number to make 100, e.g. choose 64, add 36.
- If the other player is right, she crosses out the chosen number.
- The first to cross out 6 numbers wins.

Looking around

Choose a room at home.

Challenge your child to spot 20 right angles in it



Left overs

- Take turns to choose a two-digit number less than 50.
- Write it down. Now count up to it in fours. What number is
  - left over?

The number left is the number of points you score, e.g.

- Choose 27.
- Count: *4, 8, 12, 16, 20, 24.*
- 3 left over to get to 27.
- So you score 3 points.

The first person to get 12 or more points wins.

Now try the same game counting in threes, or in fives.
Can you spot which numbers will score you points?

Sum it up

- Each player needs a dice.
- Say: *Go!* Then each rolls a dice at the same time.
- Add up all the numbers showing on your own dice, at the sides as well as at the top.
- Whoever has the highest total scores 1 point.

The first to get 10 points wins

Mugs

You need a 1 litre measuring jug and a selection of different mugs, cups or beakers.

Ask your child to fill a mug with water.
Pour the water carefully into the jug.
Read the measurement to the nearest 10 millilitres.
Write the measurement on a piece of paper.
Do this for each mug or cup.

Now ask your child to write all the measurements in order

Measuring

Use a tape measure that shows centimetres.

Take turns measuring lengths of different objects, e.g. the length of a sofa, the width of a table, the length of the bath, the height of a door.
Record the measurement in centimetres, or metres and centimetres if it is more than a metre, e.g. if the bath is 165 cm long, you could say it is 1m 65cm (or 1.65m).

Write all the measurements in order