

# Maths Targets for pupils in Year 5



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 5. 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 develop own strategies to solve a given problem.

To solve problems by extracting and interpreting information represented in tables, charts and graphs.

To identify and use the appropriate operation to solve a problem.

### Number

To read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.

To count forwards or backwards in steps of 100, 1000 or 10,000 for any given number up to 100, 000.

To round any number up to 1,000,000 to the nearest 10, 100, and 1000.

To estimate the answers to calculations involving addition, subtraction, multiplication and division

To add and subtract whole numbers with up to 5 digits, including using formal written methods

To add and subtract numbers mentally

To identify multiples including common multiples, and factors including common factors

To know and use the vocabulary of prime numbers

To establish and recall prime numbers up to 19

To multiply numbers up to 4-digits by a 1 or 2-digit number using the appropriate written method

To accurately multiply and divide numbers mentally drawing upon known facts

To divide numbers up to 4 digits by a 1-digit number and 10 and interpret remainders appropriately

To multiply and divide numbers by 10, 100 and 1000

To recognise and use square numbers and the notation for square (2).

To understand what a decimal number is and how it relates to part of a whole number.

To compare and order fractions with different denominators

To recognise mixed numbers and improper fractions and convert from one form to the other

To add and subtract fractions with the same denominator and related fractions

To read and write decimal numbers as fractions (e.g.  $0.71 = 71/100$ )  
To read, write, order and compare numbers with up to three decimal places  
To add and subtract numbers with up to three decimal places.  
To recognise and use the percent symbol (%) correctly.  
To write simple fractions as percentages and decimals as percentages (e.g.  $\frac{1}{2} = 50\% = 0.5$ ).

## **Shape, Space and Measure**

To measure angles in degrees and draw a given angle, writing its size in degrees  
To know angles are measured in degrees.  
To identify and be able to measure  $90^\circ$ ,  $180^\circ$ , and  $360^\circ$ .  
To recognise and compare different triangles including: isosceles, equilateral and right-angled; identify and name the following: parallelogram; rhombus; trapezium  
To construct 2D shapes from given dimensions; state and use properties of a square and rectangle  
To identify 3D shapes including cubes and cuboids from 2D representations (nets of shape).  
To add, subtract, multiply and divide units of measure (e.g. length, mass, volume, money) using decimal notation.

## **Statistics**

To complete tables and bar graphs from given information and solve problems using data presented in bar graphs, tables and simple pie charts.

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**

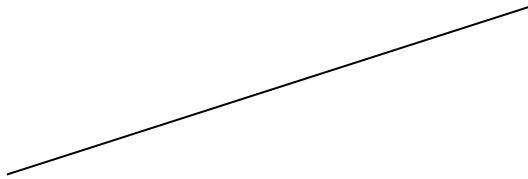
### **Line it up**

You need a ruler marked in centimetres and millimetres.

- Use the ruler to draw 10 different straight lines on a piece of paper.

- Ask your child to estimate the length of each line and write the estimate on the line.
- Now give them the ruler and ask them to measure each line to the nearest millimetre.
- Ask them to write the measurement next to the estimate, and work out the difference.
- A difference of 5 millimetres or less scores 10 points. A difference of 1 centimetre or less scores 5 points.
- How close to 100 points can she get?

**My estimate is 8.5 cm**



### Target 1000

- Roll a dice 6 times.
- Use the six digits to make two three-digit numbers.
- Add the two numbers together.
- How close to 1000 can you get?

### Telephone Challenges

- Challenge your child to find numbers in the telephone directory where the digits add up to 42.
- Find as many as possible in 10 minutes.

On another day, see if they can beat their previous total.

**Telephone: 01264 738 281**

### Times tables

Say together the six times table forwards, then backwards. Ask your child questions, such as:

Nine sixes?

How many sixes in 42? Six

times four?

Forty-eight divided by six?

Three multiplied by six?

Six times what equals sixty?

Repeat with the seven, eight and nine times tables.

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

Make a times-table grid like this.

- Shade in all the tables facts that your child knows, probably the 1s, 2s, 3s, 4s, 5s and 10s of each.
- Some facts appear twice, e.g.  $7 \times 3$  and  $3 \times 7$ , so cross out one of each.
- Are you surprised how few facts are left?
- There might only be 10 facts to learn. so take one fact a day and make up a silly rhyme together to help your child to learn it.
  - e.g. *nine sevens are sixty-three, let's have lots of chips for tea*

### Finding areas and perimeters

**Perimeter = distance around the edge of a shape**

**Area of a rectangle = length x breadth (width)**

- Collect 5 or 6 used envelopes of different sizes.
- Ask your child to estimate the perimeter of each one to the nearest centimetre. Write the estimate on the back.
- Now measure. Write the estimate next to the measurement.
- How close did your child get?
- Now choose 5 or 6 adverts from newspapers or magazines.

You could do something similar using an old newspaper, e.g.

- Ask your child to estimate the area of each advert to the nearest centimetre squared – write these down.

Now measure and calculate

### Dicey subtractions

- Take turns to roll a dice twice.
- Fill in the missing boxes.

400□-  
399□

- e.g. 4002 - 3994
- Count the smaller to the larger number  
e.g. 3995, 3996, 3997, 3998, 3999, 4000, 4001, 4002
- You counted on 8 so you score 8 points
- Keep a running total of your score
- The first to get 50 or more points wins



### Dicey division

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

- Take turns
- Choose a two-digit number. Roll a dice. If you roll a 1, roll again
- If your two digit number divides exactly by the dice number put a coin on your chosen two-digit number. Otherwise miss that turn
- The first to get 10 counters on the board win

## Battleships

Draw two grids like this

1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
	A	B	C	D	E	F	G	H	I	J

Choose ships of various lengths (use 2 and 4 squares)

Hide your grid from your partner

Take it in turns to guess the co-ordinates of your opponents ships

Respond with "hit" or "miss"

Try to get as close as possible to 555

The winner is the person to sink all their opponents ships

## How much?

While shopping, point out an item costing less than £1

Ask your child to work out in their head the cost of 3 items

Ask them to guess first

- See how close they come

## Decimal number plates

Choose 2 digits from a car registration plate.



Make the smallest and largest numbers you can, each with 1 decimal place, e.g. 5.6 and 6.5.

Now find the difference between the two decimal numbers,  
e.g.  $6.5 - 5.6 = 0.9$ .

Whoever makes the biggest difference scores 10 points.

The person with the most points wins.

Play the game again, but this time score 10 points for the smallest difference, or 10 points for the biggest total. (If you add the numbers)

## Guess my number

Choose a number between 0 and 1 with one decimal place, e.g. 0.6.

Challenge your child to ask questions to guess your number.

You may only answer 'Yes' or 'No'. For example, he could ask questions like 'Is it less than a half?'

See if he can guess your number in fewer than 5 questions.

Now let your child choose a mystery number for you to guess.

Extend the game by choosing a number with one decimal place between 1 and 10, e.g. 3.6. You may need more questions.