



# Year 3

Supporting your child at  
home with maths



# Mathematics in Year 3

During the years of lower Key Stage 2 (Year 3 and Year 4), the focus of mathematics is on the mastery of the four operations (addition, subtraction, multiplication and division) so that children can carry out calculations mentally, and using written methods. In Year 3 your child is likely to be introduced to the standard written column methods of addition and subtraction.

## Number and Place Value

- Count in multiples of 4, 8, 50 and 100
- Recognise the place value of digits in three-digit numbers (using 100, 10s and 1s)
- Read and write numbers up to 1,000 using digits and words
- Compare and order numbers up to 1,000

## Calculations

- Add and subtract numbers mentally, including adding either 1s, 10s or units to a 3-digit number
- Use the standard column method for addition and subtraction for up to three digits
- Estimate the answers to calculations, and use inverse calculations to check the answers
- Learn the 3x, 4x and 8x tables and the related division facts, for example knowing that  $56 \div 8 = 7$
- Begin to solve multiplication and division problems with two-digit numbers

## Fractions

Equivalent fractions are fractions which have the same value, such as  $\frac{1}{2}$  and  $\frac{3}{6}$  or  $\frac{1}{4}$  and  $\frac{2}{8}$ .

- Understand and use tenths, including counting in tenths
- Recognise and show equivalent fractions with small denominators
- Add and subtract simple fractions worth less than one, for example  $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$
- Put a sequence of simple fractions into size order

## Measurements

- Solve simple problems involving adding and subtracting measurements such as length and weight
- Measure the perimeter of simple shapes
- Add and subtract amounts of money, including giving change
- Tell the time to the nearest minute using an analogue clock
- Use vocabulary about time, including a.m. and p.m., hours, minutes and seconds
- Know the number of seconds in a minute and the number of days in a year or leap year

## Shape and Position

- Draw familiar 2-d shapes and make familiar 3-d shape models
- Recognise right angles, and know that these are a quarter turn, with four making a whole turn
- Identify whether an angle is greater than, less than or equal to a right angle
- Identify horizontal, vertical, perpendicular and parallel lines

Parallel lines are those which run alongside each other and never meet.  
Perpendicular lines cross over each other meeting exactly at right angles.

## Graphs and Data

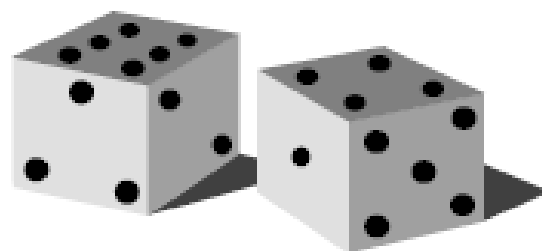
- Present and understand data in bar charts, tables and pictograms
- Answer questions about bar charts that compare two pieces of information

## Fun activities to do at home

### Make 20

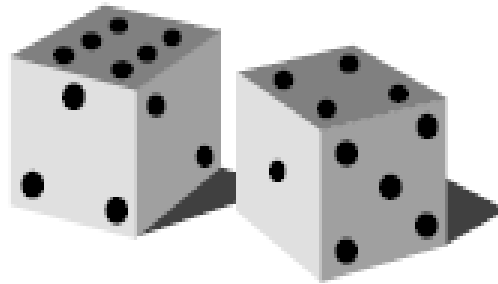
For this game you need to write out numbers 0 to 20 on a piece of paper. Make them big enough to put counters or coins on.

- ◆ Take turns. Roll a dice. Put a coin on the number that goes with the dice number to make 20, e.g. throw a '4' and put a coin on 16.
- ◆ If someone else's counter is there already, replace it with yours!
- ◆ The first person to have counters on 6 different numbers wins.



## Number games

Roll two dice. Make two-digit numbers, e.g. if you roll a 6 and 4, this could be 64 or 46. If you haven't got two dice, roll one dice twice. Ask your child to do one or more of the activities below.



- ◆ Count on or back from each number in tens.
- ◆ Add 19 to each number in their head. (A quick way is to add 20 then take away 1.)
- ◆ Subtract 9 from each number. (A quick way is to take away 10 then add back one.)
- ◆ Double each number.

## Cupboard maths

Ask your child to help you sort a food cupboard out, putting heavier items on the lower shelf and lighter items on an upper shelf.



## Board games

For these games you need to sketch a board like this. Notice how the numbers are arranged.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

- ◆ Start on 1. Toss a coin. If it lands heads, move 1 place along. If it lands tails, add 10, saying the total correctly before moving. First person to reach the bottom row wins.
- ◆ Start anywhere on the board. Roll a dice. Even numbers move you forwards and odd numbers move you backwards. If you land on a multiple of five, you can move either 10 forwards or 10 backwards. The first person to reach either the top or bottom of the board wins.

## Up and down the scales

- ◆ Guess with your child the weights of people in your home.
- ◆ Then weigh them (if they agree!). Help your child to read the scales.
- ◆ Record each weight, then write all the weights in order.

Repeat after two weeks. What, if any, is the difference in the weights?

## Secret sums

- ◆ Ask your child to say a number, e.g. 43.
- ◆ Secretly do something to it (e.g. add 30). Say the answer, e.g. 73.
- ◆ The child then says another number to you, e.g. 61.
- ◆ Do the same to that number and say the answer.
- ◆ The child has to guess what you are doing to the number each time!
- ◆ Then they can have a turn at secretly adding or subtracting something to each number that you say to them.

## Digit Divide

Make digit cards 0-9 cut out and place face down on a surface. Choose 3 and make a 3 digit number . Ask your child to read aloud the number and then partition it.

Eg 

4
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5
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6
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Eg

- four hundred and fifty six → four hundreds, five tens and six units.