A PARENTS' GUIDE TO MATHS IN THE CURRICULUM

Year 4

Calculations

I can add and subtract numbers with up to 4-digits using the formal written methods of column addition and subtraction.

Addition

Add numbers with up to 4 digits.

Continue to use the compact column method, adding units first and carrying 'on the doorstep' above the line. Also include money and measures context.

$$\begin{array}{r} 3\,5\,1\,7 \\ {}^{1}3{}^{1}9\,6\,+ \\ \hline 3\,9\,1\,3 \end{array}$$

Carry any numbers on the doorstep above the line.

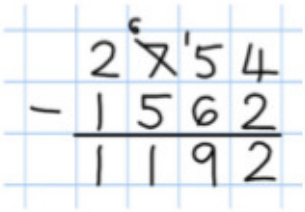
Add the units first.

Remind children of the actual value, e.g. 1 ten add 9 tens.

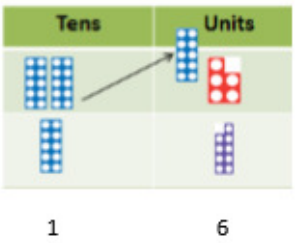
Subtraction

Year 4 Subtract with up to 4-digit numbers

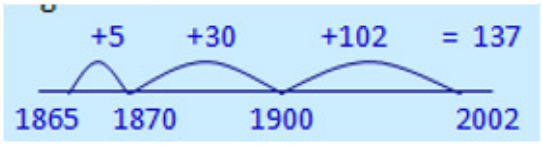
Subtract using formal column subtraction, using take and make where appropriate.



Use Numicon and Dienes to provide visual image for 'take and make'

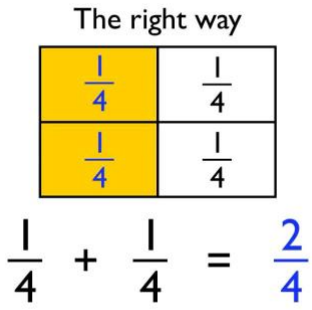


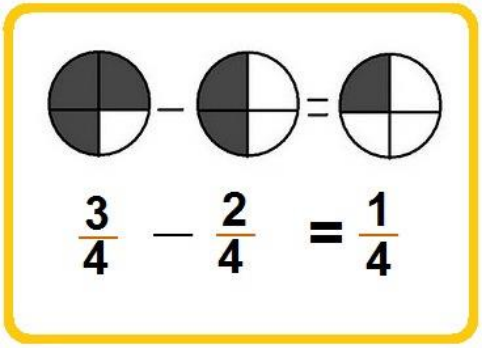
Use complementary addition to subtract amounts of money, and for subtractions where the larger number is a near multiple of 1000 or 100



I can add and subtract fractions

Children will also learn to add and subtract fractions with the same denominator (bottom number). Remind children that the bottom number does not change when adding or subtracting.





I can multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout

1st Step	2nd Step	3rd Step
1 ¹2 3	¹1 ¹2 3	¹1 ¹2 3
5 ×	5 ×	5 ×
5	1 5	6 1 5

I can divide by 10 and 100 (1 and 2 digit numbers)

Multiplying and Dividing by 10, 100 and 1000

10 000	1000	100	10	1	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
				●			

Multiplying

X 10	digits move LEFT **1** space
X 100	digits move LEFT **2** spaces
X 1000	digits move LEFT **3** spaces

Dividing

÷ 10	digits move RIGHT **1** space
÷ 100	digits move RIGHT **2** spaces
÷ 1000	digits move RIGHT **3** spaces

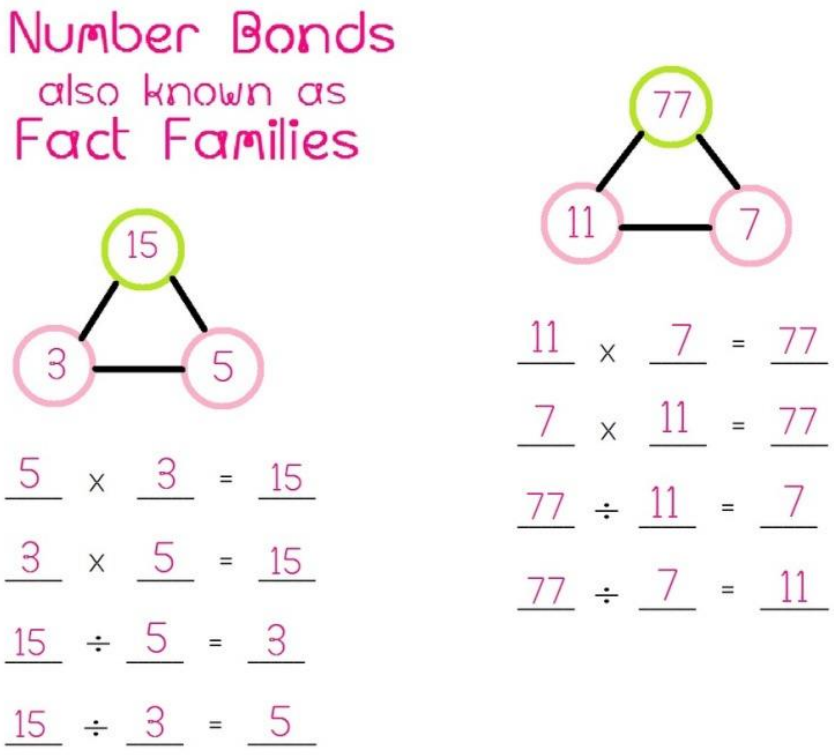
With your child, practice dividing whole number by 10 and 1000. Use the place value chart above to help!

I can estimate and use fact families (inverse operations) to check answers in a calculation.

Provide your child with a fact and ask them to give you the other three relate facts. For example:

66+34=100
34+66=100
100-34=66
100-66=34

Use multiplication knowledge to divide



I can count in multiples of 6, 7, 9, 25 and 1,000

Practice counting in multiples with your child, perhaps whilst passing a ball. (e.g. 25, 50, 75, 100, 125, 150).

Number, place value, measurement and fractions

I can recall multiplication and division facts up to 12x12

By the end of year 4, children are expected to know all of their times tables up to 12 x 12.

These should be practised randomly and multiplication knowledge should be used to answer
division facts (see fact families above).

I can divide 3 digit numbers by a single digit using short division

Divide up to 3 digit number by a single digit.

Short division: Limit the number to NO remainders in the answer OR carried (each digit must be a multiple of the divisor).

$$\begin{array}{r} 32 \\ 3\overline{)96} \end{array}$$

Remind children of correct place value, that 96 is equal to 90 and 6.

I can recognise and use factor pairs.

Encourage children to work in number order to find all pairs of factors for any number. Give your child a number and ask them to write down all the factors of that number.

I can recognise and write the decimal equivalents for 1/4, 1/2, ¾

Ask children to recall the decimals for each fraction. Challenge with the percentage too.

Decimal	Percentage	Fraction
0.5	50%	$\frac{1}{2}$
0.25	25%	$\frac{1}{4}$
0.75	75%	$\frac{3}{4}$

I can order and compare numbers beyond 1,000

Look out for large numbers in real life situations e.g. – house prices & football transfers, attendance at concerts and sports matches.
Encourage children to read the numbers and order a list of numbers over 1,000. Perhaps order the prices of different cars from largest to smallest.

I can find 1,000 more or less than a given number.

Whilst looking out for larger numbers, ask children to increase or decrease the number by 1,000.
Discuss that the thousands column will change
(e.g. 145, 667 – 1000 = 144, 667).
Challenge your child with trickier examples which will affect other numbers too (e.g. 29, 999 + 1000 = 30, 999).

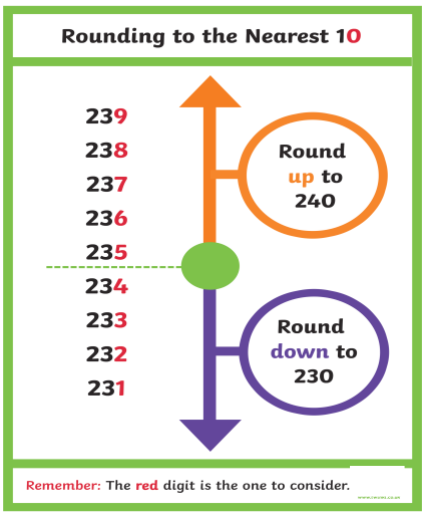
I can recognise the value of each digit in a four digit number

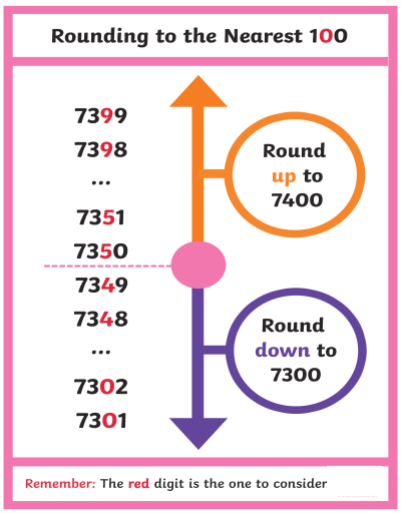
For example: 5,489.
Ask your child the value of certain digits. E.g. The 4 is worth 400 (four hundred). Try asking which digit is in a certain column.

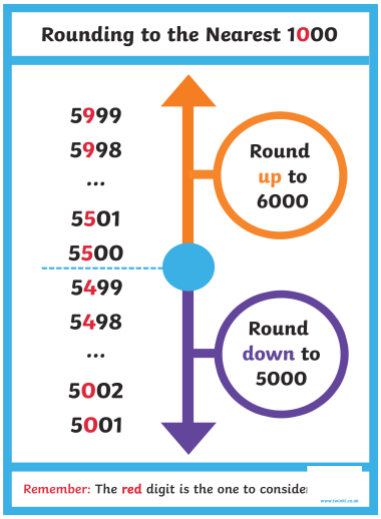
I can read Roman numerals to 100.

C – 100 L – 50 X – 10 V – 5 I – 1
E.g. LXV = 65
Look for examples of Roman numerals on clocks and television credits.

I can round any number to the nearest 10, 100 or 1,000.







1,2,3,4 round it down to the one before 5,6,7,8,9 round it up to the next one on the line.
Try rounding numbers when you see them (e.g. door numbers, prices under £1)

Use the rhyme:

Find the place and look next door.

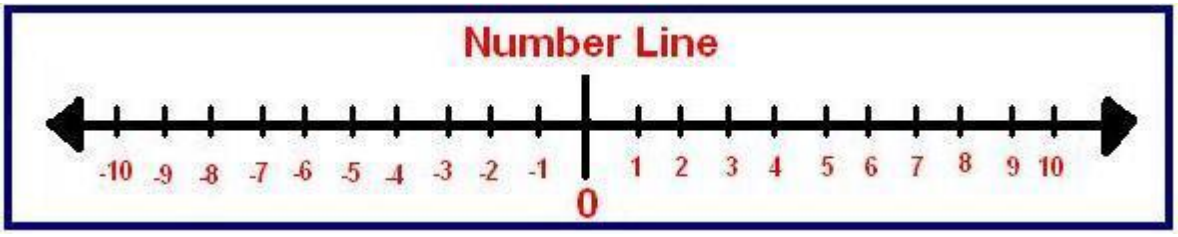
5 or more, raise the score.

4 or less, let it rest.

<u>I can decimals with 1 decimal place to the nearest whole</u>

Use the same rules as above for rounding decimals and deciding whether to round up or down.

I can count backwards through zero to include negative numbers
Practice counting backwards past zero. Use a negative number line for help.



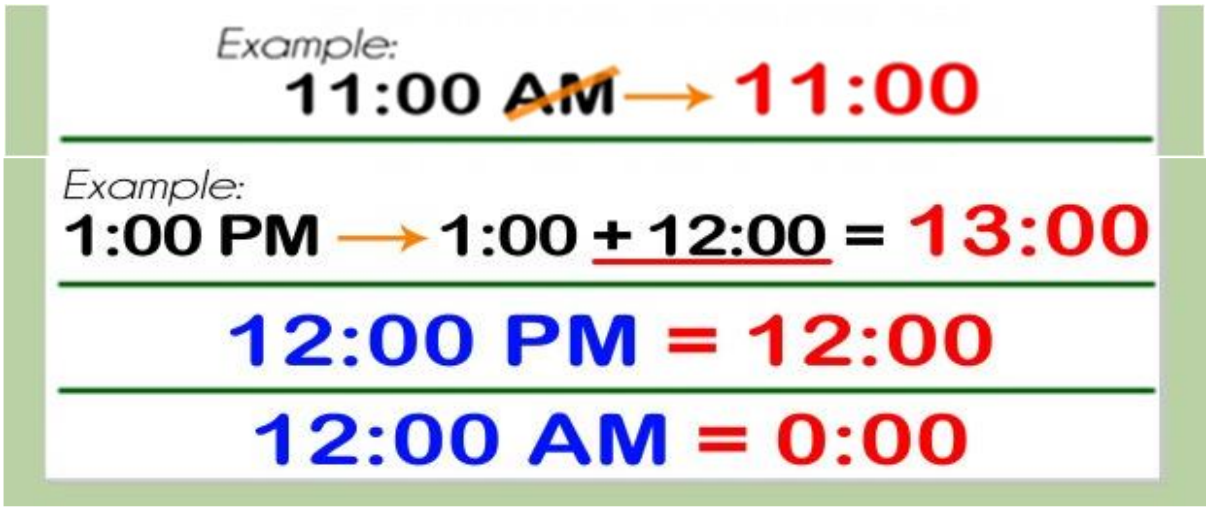
Talk about negative numbers in everyday contexts (for example temperatures). Discuss how a negative number has less value the larger it becomes.

I can solve simple measure and money problems involving decimals to 2 decimal places.
Give your child problems to solve using measure when baking, cooking, measuring different items. When out shopping, ask your child to solve the price of two items and then challenge them to work out the change! Encourage your child to compare prices and offers in shops (3 for 2 or buy one get one free).

I can read, write and convert time between analogue and digital 12 and 24 hour Clocks.

It is great for children to have an analogue watch so they can practise their time reading skills on a regular basis. When asking them the time then ask

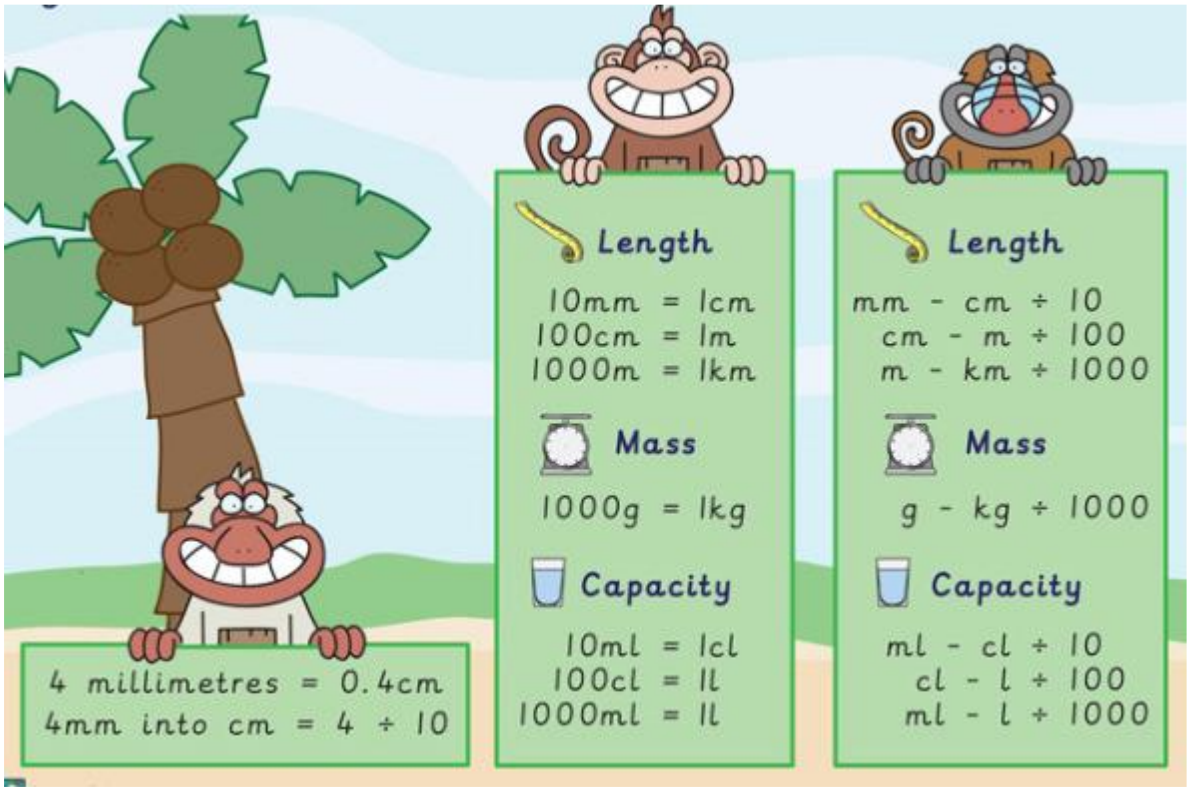
them to change it into the 24 hour clock – reminding them that A.M or P.M is not needed.
A trick is to add 12 to the number when changing from 12 hour to 24 hour and subtract
when changing from 24 hour to 12 hour times.



I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
When counting down to a special event, encourage children to say how many months away the event is and then change this into week and days. For closer events, discuss how many hours, minutes and seconds. Regularly remind children about the months rhyme.

I can convert between different units of measurements (e.g. km, m, cm, mm, g, kg, ml, l, £ & pence)
During any practical activities at home, ask your child to convert from one measurement to

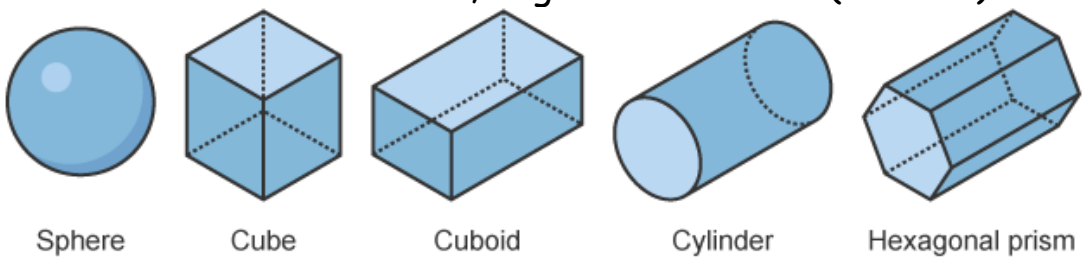
another. This could be during baking, model making or making drinks.

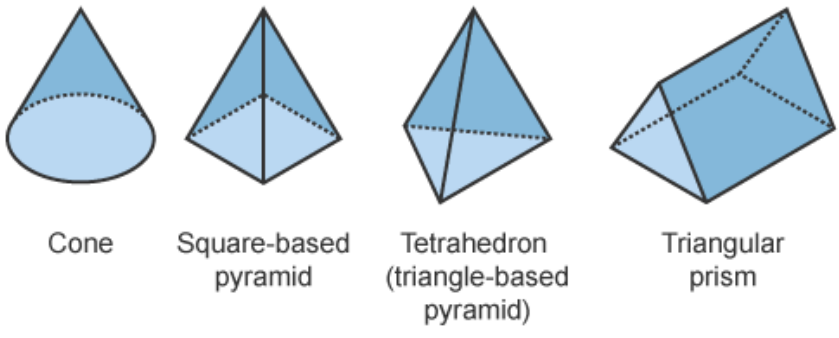


Shape

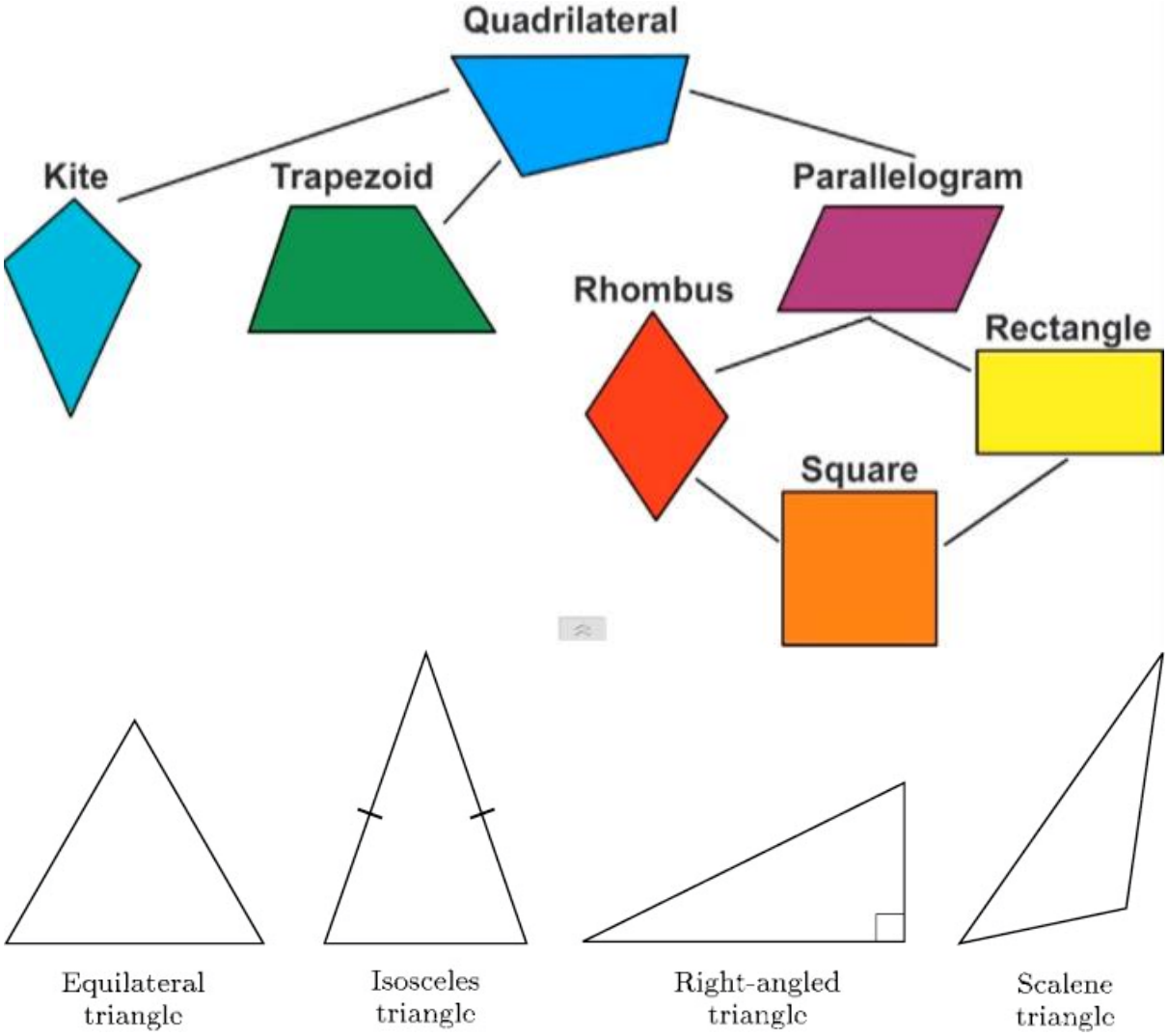
I can compare and classify geometric shapes based on properties and size. Identify 3d shapes in everyday environment.

Discuss the different properties (features) of 3D shapes. Talk about the number of faces, edges and vertices (corners).





I can recognise and classify quadrilaterals and triangles.
Discuss the different properties (features) of quadrilateral shapes and triangles. Talk about the number of edges, angles and vertices (corners).



To see the whole of the Year 4 curriculum visit:
The National Curriculum for Mathematics
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf
Websites that are useful:
http://resources.woodlands-junior.kent.sch.uk/maths/
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