

Supporting your child at home

Year 4

Maths



A guide for parents

Year 4

By the end of Y4, your child should be fluent with whole numbers and the four operations, including number facts and the concept of place value

Your child should be developing efficient written and mental methods and performing calculations accurately with increasingly large whole numbers

Your child should be able to:

- solve a range of problems including those with simple fractions and decimal place value;
- draw shapes with accuracy using mathematical reasoning and analyse shapes and their properties, confidently describing the relationships between them;
- use measuring instruments accurately, making connections between measure and number;
- recall the multiplication tables up to and including the 12 multiplication table and show precision and fluency in the work; and
- read and spell mathematical vocabulary correctly and confidently using a growing word reading knowledge and a knowledge of spelling.

Addition and subtraction formal written methods

789 + 642 becomes

$$\begin{array}{r} 789 \\ + 642 \\ \hline 1431 \\ \hline 1 \quad 1 \end{array}$$

Answer: 1431

874 - 523 becomes

$$\begin{array}{r} 874 \\ - 523 \\ \hline 351 \\ \hline \end{array}$$

Answer: 351

932 - 457 becomes

$$\begin{array}{r} 8 \quad 12 \quad 1 \\ 932 \\ - 457 \\ \hline 475 \\ \hline \end{array}$$

Answer: 475

Children still need to be able to choose the appropriate strategy for the size of calculation that they are dealing with. Some calculations require working mentally such as $270 - 3 =$

High Jump



To 'jump' higher than all the other competitors.

A pack of playing cards with Tens, Jacks, Queens and Kings removed.

To Start:

First round: The 'bar' is set at e.g. 40 cm.

Each player is given two playing cards. They make the highest value two-digit number that they can with the cards that they hold. Each player in turn reveals their two-digit number. If it is greater than, or equal to, the 'bar' height they have successfully completed that round.

If it is less than the 'bar' height then they have another go - but lose a life.

Each player has 3 lives.

Once all players have completed a round, or run out of lives, then the bar is moved up by, say, 5 cm.

Play continues until one player is left.

Ultimate Challenge:

What if the challenge is to go under the 'bar' in limbo style and the bar moves increasingly down?

What if the 'event' is the Pole Vault...and heights are measured in metres e.g. start at 6.3m? The players are given 3 cards to make a 3 digit centimetre height.

Explaining your reasoning...

Ben and John calculate $420 + 221 + 280$ using different strategies.

Ben's strategy is $420 + 221 = 641$
 $641 + 280 = 921$

Answer 921

John's strategy is $420 + 280 = 700$
 $700 + 221 = 921$

Answer: 921

What is the same about these strategies and what is different?
Which strategy do you prefer and why?

Would you rather have:

$3 \times 50p$ or $7 \times 20p$

$8 \times 10p$ or $5 \times 20p$

$\frac{1}{2}$ of £5 or $10 \times 20p$

Explain your reasoning.

I think that...because ...

I chose...because...

I know... so that means that ...

I know... so I can work out...

Use these openings to support your child in answering questions.

At home...

Choose a room at home and standing in one spot can you identify 20 right angles.

Cooking



Discuss how you might work out the cost of a week's food for the family. Encourage your child to estimate the shopping bill by keeping a running total while you shop.

Help with the cooking – use scales to help weigh out ingredients
What happens if you need double the amount of cakes? Can you convert between grams and Kilograms?

Try to find examples of numbers that contain fractions or decimals in a daily newspaper, a magazine or on food containers.

Work out how much time, on average, different people spend doing different things at home, for example, eating, tidying up, cooking, playing, watching television, using a computer, sleeping.

Planning a journey

Look at maps of different scales of your local area, for example, a road atlas and a web map, and discuss how far it is from your home city, town or village to other nearby places.

Look at the dashboard before going on the journey – how much petrol is in the car?

What is the total mileage that the car has done? At the start of the journey? At the end of the journey? How far did you travel?

Looking at the petrol station sign what is the difference between the cost of petrol and diesel?

Look out for Roman Numerals on your journey.

I VI
IX C

Measuring 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.

Using a tape measure can you accurately measure the perimeter of:

Your room

A table

A TV screen

Phone screen/tablet screen

Children will be using the formal written methods of multiplication and division by the end of year 4.

24×6 becomes

$$\begin{array}{r} 24 \\ \times 6 \\ \hline 144 \\ \hline \end{array}$$

Answer: 144

342×7 becomes

$$\begin{array}{r} 342 \\ \times 7 \\ \hline 2394 \\ \hline \end{array}$$

Answer: 2394

$98 \div 7$ becomes

$$\begin{array}{r} 14 \\ 7 \overline{) 98} \\ \underline{7} \\ 28 \\ \underline{28} \\ 0 \end{array}$$

Answer: 14

I have read 134 of the 512 pages of my book. How many more pages must I read to reach the middle?

There are 8 shelves of books. 6 of the shelves hold 25 books each. 2 of the shelves have 35 books each. How many books altogether are on the shelves?

I think of a number, subtract 17, and divide by 6. The answer is 20. What was my number?