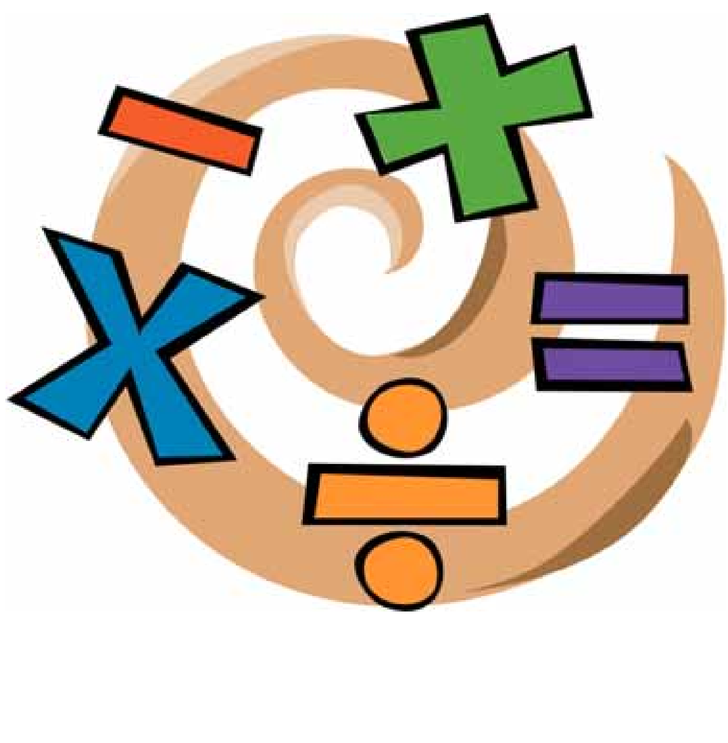
Maths Is Fun!

Activity Pack

Year 4



1. Spot the Difference

Draw a horizontal line on a piece of paper. Write a 3 digit number at the left hand end and a higher one at the right hand end. Ask your child to work out how far apart the numbers are, by using small jumps.

Here's an example:

238____**413**

The child would draw a small jump from 238 to 240 – a jump of **2**.

From there they could draw a jump to 300 – a jump of **60**. From there they could jump to 400 – a jump of **100**, and finally from there a jump of **13** to get them to the end. Adding up **2** and **60** and **100** and **13** gives a total of 175 Their jottings might look a bit like this:

2 + 60 + 100 + 13 = 175

238__240__________300________________400__ **413**

Can you add the jumps?

2. Fingers

A game that can be done any time, any place, anywhere! This game is similar to ‘Roll Two Dice’ but can be done with an element of competition if required. It is designed to encourage rapid recall of multiplication tables in a fun way.

You and your child each put a hand behind your back. Secretly extend between 1 and 5 fingers. Say “Ready Steady GO!” and both of you must bring the hand out in front of you.

Each of you must now call out the product of (*i.e. multiply together*) the number of fingers on each hand. For example, if you show 2 fingers and your child reveals all 5, you must both quickly call out “TEN”! The winner writes down one letter from the word “FINGERS (in sequence)”, and the first person to write down all six letters is the winner of the whole game.

If your child is not confident with their tables, do not make it a competition. Simply give your child a letter for each time they get it right and see if they can get to spell FINGERS with a specific time limit.

3. Yoikes!

This one is guaranteed to be a winner – children love it!

Each player first draws a line of 10 dashes across a sheet of paper, as though they were playing hangman. They also need to sketch a rough ‘bin’; an open-topped square works just fine.

A caller (either you or a third party) will then call out a random number between 1 and 100. All players must decide which dash to write this number on. Repeat this ten times.

Once a number is placed, it can never be moved. Also, a larger number may NEVER be written to the left of a smaller one. So, the aim of the game is to use skill (and some luck) to decide which dash to place each number on.

If a player is unable to place a called number without breaking the rules, they must shout “Yoikes!” and write the number in the bin instead. The aim of the game of course is to be able to put all 10 numbers on the dashes correctly, which doesn’t happen very often!

4. Shopkeeper

In Year 3 children practised working out change from £1. Now they are in Year 4, they should move on to something a little more challenging, so this time when they are out and about with you ask them to work out the change from a £2 coin.

Once they have realised that this is not much harder than the £1 version, you can progress to getting them to work out the change from a £5 note.

Do not use pencils – this is an ‘in the head’ activity.

Encourage them to be systematic – go to the next multiple of 10p, then to the next £1and finally to £5 itself.

This is one of the most useful life skills they can learn, even if only to avoid being short-changed!

5. Shut the Box

Another game with two dice. Both write out the numbers from 1 to 9. Take it in turns to roll the dice and add them up. Cross off the total, or if you prefer, cross off any two numbers that make the total, or indeed any two numbers that make the total.

So, if you roll 3 and 4, you could cross off 7, or 2 and 5, or 1 and 6, or 3 and 4. Assuming you can cross off two numbers (or their total), you can roll again.

The aim of the game is to cross off all your numbers before becoming stuck, at which point play passes to your opponent. Once you have both become stuck (or succeeded), your remaining numbers become your final score – the aim is to have as low as score as possible (preferably zero!)

So, a player whose card looked like this at the end would score 237.

~~1~~ 2 3 ~~4~~ ~~5~~ ~~6~~ 7 ~~8~~ ~~9~~

6. Count On

SIZE OFJUMP	STARTING NUMBER
3	0
4	5
6	6
7	7
9	10

This is an easy game for two players which needs no equipment at all. One of you chooses a number from the first column (the size of jump), and the other chooses a number from the second (the starting number).

Taking it in turns, you must say the next number in sequence.

So, if you chose to start with jumps of 3, and your child chooses to start at 5, the conversation would go (hopefully):

You: “5”

Child: “8”

You: “11”

Child: “14” etc.

Stop when you get up to 50, or whenever you feel that your child is struggling, and swap roles. Repeat this until you have got to 50 at least 5 times.

7. Count Back

SIZE OF JUMP	STARTING NUMBER
3	50
4	40
6	45
7	42
9	29

Once children have mastered the Count On game, it is important that they also learn to count back as well.

So, this game should not be attempted before your child is familiar with Count On, but it does provide a useful extension activity. It is exactly the same, but this time keep counting until you get to zero.

8. The Invisible Doubling Machine

Ask your child to imagine a horizontal line floating in front of their eyes. Next, give them a number from 1 to 100. They must imagine splitting this number into tens and units (e.g. 43 is 40 and 3), and then pushing each section up through the doubling machine. (40 should go up on the left and 3 on the right).

As numbers cross the line, they double. So, 40 becomes 80 as it crosses the line, and 3 becomes 6. Putting the tens and units back together gives 86. Use lots of examples and see if they can get 10 right in a row. To make it harder, use numbers over 5 in the units column, or you can extend the game to 3-digit numbers.

Children will need lots of practise at this and they may discover that they can split numbers where THEY want to. For example, to double 16, instead of doubling 10 and doubling 6, they might choose to double 15 (30) and 1 (2) and add. It still works either way.

9. From Time to Time

By Year 4 it is useful for children to be able to tell the time using both analogue and digital clocks and be able to switch between them with confidence. This only comes with practice of course, so this is one of the easiest and most useful activities you can do.

Look at a clock with your child. Initially, it is best to use a toy clock but a real one will suffice. Ask them to read the time. In Year 3 we focused on hours, half past, and if they were ready, quarter past and quarter to.

In Year 4 it is useful for children to be able to tell the time when the long hand is pointing at one of the numbers (i.e. in multiples of 5 minutes only). If they can, get them to tell you what a digital clock might say. Alternatively, show them a digital clock and ask them.

The only secret is to do this lots of times. In this case, repetition brings confidence and confidence brings success.

Again, if they find this very easy, of course it is fine to progress to telling the time accurately to 1 minute, but there is absolutely no pressure to do so!

10. Speed Cards!

This is a good one for the more competitive mathematicians! Remove the picture cards (jacks, queens and kings) and all the black cards from a pack. You are left with the ace to ten of hearts and diamonds. Shuffle these then deal one face up. Deal the next card on top and your child has to add it on mentally and say the total out loud. Repeat until every card is dealt. You should finish on 110 if all calculations are correct.

The aim is to time this and try to get faster and more accurate each time you play. This really is addictive!

For example, if the first four cards were 2, 5, 6, and 5, the game would go like this:

YOU DEAL 2 then YOU DEAL 5.

Child: “Seven”

YOU DEAL 6

Child: “Thirteen”

YOU DEAL 5

Child “Eighteen” and so on.