Cumbernauld Primary

Second Level

Developing your Child's Mental Agility in Numeracy

An information leaflet for parents

In Cumbernauld Primary, we have been working really hard to improve the mental agility of our pupils. Please find below some activities that you can do at home to help your child.

Saying Number Word Sequence Forwards in 2's, 5's, 10's and 100's not always starting at 0

Give examples such as:

- "Count forwards in 1's from 103"
- "Count forwards in 2's from 198 "
- "Count forwards in 100's from 43 212 e.g. 43 212, 43 312, 43 412, 43 512
- "Count forwards in 10's from 3203 e.g. 3213, 3223, 3233

- "Count backwards in 2's from 2012"
- "Count backwards in 100's from 973""
- "Count backwards in 100's from 880 e.g. 880, 780, 680 etc."

Number Tennis

Take alternate turns at saying numbers forwards and backwards. Work within numbers to 100, then to 1000, then to 1 000 000

Identifying Numerals

Write a 2, 3, 4, 5 or 6 digit numeral. Ask your child to read it back to you. For 2 digit numbers, include teen numbers. For 3, 4, 5 or 6 digit numbers, include zeros eg 306, 570, 1032, 11 309

Writing Numerals

Say a 2, 3, 4, or 5 digit number and ask your child to write it down.

Adding Numbers

Write a 2, 3, 4 or 5 digit number eg 4 543. Ask your child to add ten, take away 300, add 2 thousand etc. Begin by adding a value which only changes one digit at a time.

Subtracting Numbers

Repeat the above activity but ask children to take away instead of adding.

Number Word Before/Number Word After

Ask your child to identify the number before Work within the range up to 100, then 1000, then 10 000, then 1 000 000. Repeat by asking the number before.
E.g. before 183, after 125, in between 457 and 459.

What comes after 9?

This activity focuses attention on the number after a number ending in 9. Ask your child "What comes after 9? 29? 109? 249? 1099? 23 389? Etc.

Doubles

Ask your child to double numbers to 10, numbers to 100, etc. Adapt to use knowledge of doubles to find a half of a number to 20, to 100, to 1000 and beyond.

Sequencing Numbers

- Say a sequence of 3 or 4 numbers and ask your child to continue the sequence e.g. 323, 324, 325…….
- Extend to include backward sequences e.g. 189, 188, 187…….

Number Lines

Draw a line on a piece of paper. Mark number 0 at one end and number 100 at the other. Ask your child to show you where a particular number should be placed on the line e.g. "Where should number 59 be? Number 83? Number 34 etc.

0 100

Extend to numbers from 0-1000 or 0 - 10 000

0 1000

Mental Addition and Subtraction

Ask your child to solve addition or subtraction sums with 2, 3 or 4 digit numbers, mentally

Multiplication Tables

Practice the times tables with your child.

- Take turns asking each other a times table fact e.g. 3 x 4, 5 x 9.
- Recite the tables together.
- Say the multiples (answers) from a times table e.g. 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36
- Play times table bingo. You need a dice, pencil and paper for each player. Each of you draw a table like this on a piece of paper.

Decide which table to practice. Each of you rolls a dice. Multiply the number you have rolled by your chosen table e.g. if you are practising 6 times table and you roll a 4 you must quickly work out 6 x 4. Write the answer in a box. Keep doing this until you have filled all the boxes. Now keep going and if you have written an answer in your table, cross it out. The first person who crosses out all of their answers is the winner.

Number Compliments to 20, 100, 1000 and 10 000

Ask your child what would be added to a given number to make 2the target number?

E.g. "12 + what makes 20?"
"143 + what makes 1000?"
"3 567 + what makes 10 000?"

Play "I Say, You Say"

You say a number and your child tells you what number should be added to it to make a total of 100, 1000, 10 000 or 100 000

E.g. Parent: "I say 97" Child: "I say 3"
Parent: "I say 38" Child: "I say 62"
Parent: "I say 345" Child: "I say 655"

Fractions

Ask your child to find a fraction of a number.

E.g. $\frac{1}{5}$ of 20, $\frac{1}{7}$ of 42, $\frac{1}{9}$ of 900

You can add more challenge for your child by asking them to find $\frac{2}{3}$, $\frac{4}{5}$, $\frac{3}{5}$ of a number.

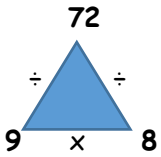
Decimals and Percentages

Ask your child to write a percentage as a decimal.
E.g. 75% would be 0.75
Ask them to write it as a fraction and simplify it.
eg 75% = 0.75 = $\frac{75}{100}$ = $\frac{15}{20}$ = $\frac{3}{4}$

Know One Fact, Know Four!!

In school, children are encouraged to use their times tables to help them to solve division sums. They can use this triangle to help them. Ask your child a division fact. They can draw a triangle to help. Eg 32 ÷ 8=, 45 ÷9=, 63 ÷ 7=

I know that **4 x 6 =24** and I can show it on my triangle like this.



I can use my triangle now to help me to find 3 more facts.

9x 8 = 72
72 ÷ 9 = 8
72 ÷ 8 = 9

Useful Websites

- Sumdog
- Studyladder
- Doodlemaths
- Top Marks
- BBC Bitesize
- Nrich Maths