

The Language of Maths in Scoil Lios Teilic

A Guide for Parents

Addition $3 + 5 = 8$

This is the language we use for addition.

Plus: 3 plus 5 = 8

More than: 3 more than 5 = 8

And: 3 and 5 = 8

Total: The total of 3 and 5 equals 8

Sum of: The sum of 3 and 5 equals 8

Altogether: 3 and 5 make 8 altogether

Add: When we add 3 and 5 we make 8

Count on: We start at 3 and count on 5 more

Jump on:

Increase by:

ADDITION	EXPLANATION												
(a) Tables $6 + 5 = 11$	* Say 6 plus 5 equals 11												
(b)	<ul style="list-style-type: none"> * Begin at the top with the units * Say 6 and 5 is 11 * Write down one and carry one 												
<table border="1" style="border-collapse: collapse; margin: auto;"> <tr><td></td><td style="text-align: center;">T</td><td style="text-align: center;">U</td></tr> <tr><td></td><td style="text-align: center;">2</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">+</td><td style="text-align: center;">1₁</td><td style="text-align: center;">5</td></tr> <tr style="border-top: 2px solid black;"><td></td><td style="text-align: center;">4</td><td style="text-align: center;">1</td></tr> </table>		T	U		2	6	+	1 ₁	5		4	1	<ul style="list-style-type: none"> * Write the carried one small (as shown) * Add the tens ($2+1+1=4$) * Write "+" sign on left
	T	U											
	2	6											
+	1 ₁	5											
	4	1											

Subtraction $6 - 4 = 2$

This is the language we use for subtractions

Take away: 6 take away 4 = 2

Minus: 6 minus 4 = 2

Subtract: Subtract 4 from 6 = 2

From: 4 from 6 = 2

Difference: The difference between 4 and 6 is 2

SUBTRACTION	EXPLANATION												
(a) Tables $7 - 4 = 3$	<ul style="list-style-type: none"> * Begin at left * Say "7 minus 4 equals 3" * Say 7 subtract 4 * Say 7 minus 4 												
(b)	<div style="text-align: center; margin-bottom: 10px;"> <table style="margin: auto;"> <tr><td style="border: none;"> </td><td style="border: none;">37</td></tr> <tr><td style="border: none;">-</td><td style="border: none;">14</td></tr> <tr><td style="border: none;"> </td><td style="border: none;">-----</td></tr> <tr><td style="border: none;"> </td><td style="border: none;"> </td></tr> </table> </div> <ul style="list-style-type: none"> * Begin at the top with the units * Say "7 minus 4" * Write "-" sign on left 		37	-	14		-----						
	37												
-	14												

(c) Subtraction	<ul style="list-style-type: none"> * Begin at the top with the units * Say "2 take away 8, I don't have enough" * Borrow 10 and add it to the 2 to make 12 (write it small) * Say "12 minus 8 equals 4" * Pay back the ten you borrowed (write it small) * Say "4 minus 2 equals 2" 												
<p>In learning subtraction, the teacher will use many methods to explain "10" and breaking up tens. By the end of 2nd class, subtraction will be written as follows:</p> <table border="1" style="border-collapse: collapse; margin: auto;"> <tr><td></td><td style="text-align: center;">T</td><td style="text-align: center;">U</td></tr> <tr><td></td><td style="text-align: center;">4</td><td style="text-align: center;">¹2</td></tr> <tr><td style="text-align: center;">-</td><td style="text-align: center;">1₁</td><td style="text-align: center;">8</td></tr> <tr style="border-top: 2px solid black;"><td></td><td style="text-align: center;">2</td><td style="text-align: center;">4</td></tr> </table>		T	U		4	¹ 2	-	1 ₁	8		2	4	
	T	U											
	4	¹ 2											
-	1 ₁	8											
	2	4											

Multiplication $5 \times 3 = 15$

This is the language we use for multiplication

Groups of: 5 groups of 3 = 15

Multiply: Multiply 5 by 3

Times: 5 times 3 = 15

Product: Find the product of 5 and 3

Power of: 2^3 is 2 to the power of 3 ($2 \times 2 \times 2 = 8$)

Square: 4^2 is 4 squared ($4 \times 4 = 16$)

Of: $\frac{1}{2}$ of 20 = 10

Multiplication	Explanation																								
(a) Tables $6 \times 3 = 18$	<ul style="list-style-type: none"> * Say 6 times 3 equals 18 * From 4th class allow "6 three's 18" 																								
(b) Written work $4 \times 7 = 28$	<ul style="list-style-type: none"> * Say 4 times 7 * 4 sevens * 4 groups of/sets of 7 * 4×7 is the same as 7×4 																								
(c) Short multiplication <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td></td><td>H</td><td>T</td><td>U</td></tr> <tr><td></td><td></td><td>2</td><td>9</td></tr> <tr><td>x</td><td>1</td><td>4</td><td>5</td></tr> <tr><td></td><td>1</td><td>4</td><td>5</td></tr> </table>		H	T	U			2	9	x	1	4	5		1	4	5	<ul style="list-style-type: none"> * Begin at the bottom * Carried number (small) <u>on</u> the line * Keep moving left with carried numbers * Write "x" sign to the left 								
	H	T	U																						
		2	9																						
x	1	4	5																						
	1	4	5																						
(d) Long multiplication <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td></td><td>H</td><td>T</td><td>U</td></tr> <tr><td></td><td></td><td>3</td><td>6</td></tr> <tr><td></td><td>x</td><td>122</td><td>4</td></tr> <tr><td></td><td>1</td><td>4</td><td>4</td></tr> <tr><td>+</td><td>7</td><td>2</td><td>0</td></tr> <tr><td></td><td>8</td><td>6</td><td>4</td></tr> </table>		H	T	U			3	6		x	122	4		1	4	4	+	7	2	0		8	6	4	<ul style="list-style-type: none"> * 36×24 * Multiply 36 by 4 first * Write 0 under the units as shown * Multiply 36 by 2 * Add the two answers
	H	T	U																						
		3	6																						
	x	122	4																						
	1	4	4																						
+	7	2	0																						
	8	6	4																						

Division $8 \div 2 = 4$

This is the language we use for division

Divide: Divide 8 by 2

Split: Split 8 into 2 equal groups

Group: How many groups of 2 can you make from 8?

Share: Share 8 equally among 2

How many: How many equal groups can you make?

Give: Give equal amounts

Division	Explanation
(a) Tables $12 \div 4 = 3$	<ul style="list-style-type: none"> * Say 12 divided by 4 equals 3
(b) Oral Work $12 \div 4$	<ul style="list-style-type: none"> * From 4th class - 4 into 12 Use all variations and language Example: <ul style="list-style-type: none"> * 12 divided by 4 * 12 divided into 4 groups * 12 shared between 4 girls * Divide 12 into groups of 4 * Divide /Share 12 between 4 girls * How many 4's in 12 * How many times can I take 4 from 12

Division Continued:

<p>(c) Write 4 ways</p> <p>* $35 \div 7$</p> <p>* $7 \overline{)35}$</p> <p>* $7 \overline{)35}$</p> <p>* $\begin{array}{r} 35 \\ 7 \end{array}$</p>	<p>Say:</p> <ul style="list-style-type: none"> * How many 7's in 35? * 7 into 35 goes 5 times
<p>(d) Long Division</p> $\begin{array}{r} 021 \\ 18 \overline{)386} \\ - 36 \downarrow \\ \hline 26 \\ - 18 \\ \hline 8 \end{array}$ <p>Answer: 21 R 8</p>	<ul style="list-style-type: none"> * Long division begins at dividing by 13 * Estimate first - round the numbers to the nearest 10 * Say 20 into 400 goes 20 times * So my answer should be roughly 20 <p>Doing the sum</p> <ul style="list-style-type: none"> * 18 into 3 won't go (put a zero on top line) * 18 into 38 goes 2 times (put a 2 on top line) * 2 times 18 = 36 so take 36 from 38 * That leaves 2 * Bring down the 6 from the 386 beside the 2 * Say 18 into 26 goes once (put a 1 on top line) * Take 18 from 26 and that leaves 8 <p style="text-align: center;">The answer is 21 remainder 8</p>

Time

<p>Adding Time</p> $\begin{array}{r} 2 \text{ hrs } 37 \text{ min} \\ + 3 \text{ hrs } 36 \text{ min} \\ \hline 5 \text{ hrs } 73 \text{ min} \\ - 1 \text{ hr } 60 \text{ min} \\ \hline 6 \text{ hrs } 13 \text{ min} \end{array}$	<p>Explanation</p> <ul style="list-style-type: none"> * Add the minutes and the hours * 73 mins is more than 1 hour * Take 60 minutes (1 hour) from 73 mins * Add the hour you took away to the hours
<p>Subtracting Time</p> $\begin{array}{r} 3 \text{ hrs } 25 \text{ min} \\ - 2 \text{ hrs } 38 \text{ min} \\ \hline 3 \text{ hrs } 85 \text{ min} \\ - 2 \text{ hrs } 1 \text{ hr } 38 \text{ min} \\ \hline 0 \text{ hrs } 47 \text{ min} \end{array}$	<p>Explanation</p> <ul style="list-style-type: none"> * Subtract the minutes first * 25 take away 38 (I can't do it) * Borrow 1 hour (60 mins) from the hours and add to 25mins * You now have 85 mins * Don't forget to pay back * 85 mins take 38 mins = 47 * 3hrs take 3hrs = 0hrs

Equals $3 + 2 = 5$

Equals: $3 + 2$ **equals** 5
Will be: If I add 3 and 2, the answer **will be** 5
Makes: $3 + 2$ **makes** 5
Is: $3 + 2$ **is** 5
Answer is: If I add $3 + 2$, the **answer is** 5
Same as: $3 + 2$ is the **same as** $2 + 3$ which is the **same as** 5

Other maths language used:

We use the symbols $>$ and $<$ to show "greater than" $>$ and "less than" $<$

The bigger side to the bigger number

$8 > 4$ "8 is greater than 4"

$4 < 8$ "4 is less than 8"

We also say:

Crocodile's mouth opens at the big number

Crocodile always chases the big number

$$4 < 6$$



Problem solving - Written problems

Do as many of these steps as are necessary:

- 1 Read the problem
- 2 Read it again and circle the "maths" words
- 3 What am I being asked? What do I need to know to find the answer, what do I know, what do I need to find out.
- 4 Draw a diagram/picture
- 5 Can you do this in your head using smaller numbers?
- 6 Encourage children to share their methods

Recording: Written Work by the Pupils

- * Sum copies must always be used
- * Copies must always be ruled - neatness and order help in logical work
- * Rough work is left to be seen by the teacher and to be checked
- * Write only one number in a box

**Addition of
Mixed Numbers:**

$$2 \frac{5}{6} + 3 \frac{2}{3}$$

$$2 \frac{5}{6} = 3 \frac{2}{3}$$

$$2 \frac{5}{6} = \underline{3} \frac{\underline{4}}{6}$$

$$5 \frac{9}{6} = 5 + 1 \frac{3}{6} = 6 \frac{3}{6} = 6 \frac{1}{2}$$

**Subtraction of
Mixed Numbers:**

$$3 \frac{1}{5} = 3 \frac{2}{10} + \frac{10}{10} = 3 \frac{12}{10}$$

$$-2 \frac{7}{10} = 2 \frac{7}{10} \quad '= \text{?????????}$$

$$\frac{5}{10} = \frac{1}{2}$$