

**MULTIPLICATION (1)****Multiplication Tables****FIRST LEVEL**

Children are introduced to multiplication tables in the First Level. They are first introduced to the 2,4,8 times tables, followed by the 10, 5 times tables, then the 3, 6 and 9 times tables.

The children develop the vocabulary used in multiplication, for example :

“multiplied by” , “times” and “lots of” .

They should learn and be able to recall table facts quickly and therefore frequent practice is required. Once children are familiar with the table facts they are introduced to a written form, and learn to complete word problems based on multiplication.

**Examples of written calculations****No carrying**

T	U	
2	1	Start at the units column
<u>x</u>	4	4 times 1 unit is 4 units
—	4	Record this 4 in the units column

T	U	
2	1	Multiply the tens. 4 times 2 tens is 8 tens
<u>x</u>	4	Record this 8 in the tens column
8	4	The answer is 8 tens and 4 units or 84

**With Carrying**

T	U	
2	4	Start at the units column
<u>x</u>	3	3 times 4 units is 12 units
—	2	Write 2 in the units column and carry 1 ten
1		

T	U	
2	4	Multiply the tens. 3 times 2 tens is 6 tens
<u>x</u>	3	6 tens add 1 ten is 7 tens
7	2	Record this 7 in the tens column
1		The answer is 7 tens and 2 units or 72

## MULTIPLICATION (2)

### Multiplication Tables

#### SECOND LEVEL

##### Example using hundreds, tens and units

<b>H T U</b>	
1 4 3	Start at the units, 6 times 3 units is 18 units
<u>  x  6</u>	Write 8 in the units column and carry 1 ten.
<u>    8</u>	
1	

<b>H T U</b>	
1 4 3	Multiply the tens. 6 times 4 tens is 24 tens. Add the ten carried makes 25 tens.
<u>  x  6</u>	Write 5 in the tens column and carry the 2 hundreds
<u>  5 8</u>	Write 8 in the units column and carry 1 ten.
2 1	

<b>H T U</b>	
1 4 3	Multiply the hundreds. 6 times 1 hundred is 6 hundreds.
<u>  x  6</u>	Add on 2 hundreds carried. Write 8 in the hundreds column.
<u>8 5 8</u>	The answer is 8 hundreds, 5 tens and 8 units, or 858
2 1	

##### Example using decimals

The process remains the same even if we are using decimals

<b>T U · Tth Hths</b>	
2 · 5 4	Start at the hundredths column
<u>  x  7</u>	7 times 4 hundredths is 28 hundredths
<u>  · 8</u>	Put 8 in the hundredths column and carry 2
2	

<b>T U · Tth Hths</b>	
2 · 5 4	7 times 5 tenths is 35 tenths. Add on 2 carried.
<u>  x  7</u>	Write 7 in the tenths column and carry 3 units.
<u>  · 7 8</u>	
3 2	

<b>T U · Tth Hths</b>	
2 · 5 4	7 times 2 units is 14 units. Add on the 3 units carried.
<u>  x  7</u>	Write 7 in the units column and 1 in the tens column. The answer is 1
<u>1 7 · 7 8</u>	ten , 7 units, 7 tenths and 8 hundredths or 17.78
3 2	

### MULTIPLICATION (3)

#### **Multiplying by 10, 100 and 1000**

##### **FIRST LEVEL**

In the first level children are expected to be able to multiply whole numbers mentally by 10 and 100.

**If your child is learning about:**

##### **Multiplying by 10**

To multiply whole numbers by 10 we move each digit one place to the left. Put a zero in the units place.

**Example**      294 x 10

<b>Th</b>	<b>H</b>	<b>T</b>	<b>U</b>	
2	9	4	x 10	

= 2 9 4 0

**If your child is learning about:**

##### **Multiplying by 100**

To multiply whole numbers by 100 we move each digit two places to the left. Put a zero in the units place **and** in the tens place.

**Example**      294 x 100

<b>Tth</b>	<b>Th</b>	<b>H</b>	<b>T</b>	<b>U</b>	
2	9	4	x 100		

= 2 9 4 0 0

##### **SECOND LEVEL**

**If your child is learning about:**

##### **Multiplying by 1000**

To multiply whole numbers by 1000 we move each digit three places to the left. Put a zero in the units place **and** in the tens place **and** in the hundreds place.

**Example**      294 x 1000

<b>Hth</b>	<b>Tth</b>	<b>Th</b>	<b>H</b>	<b>T</b>	<b>U</b>	
2	9	4	x 1000			

= 2 9 4 0 0 0

## MULTIPLICATION (4)

### Multiplying Decimals by 10, 100 and 1000

#### SECOND LEVEL

This process remains the same when we are using decimals. The digits move to the left, but the decimal point never moves. Children may begin to notice that the tenths become units, units become tens and tens become hundreds when multiplying by 10. When multiplying by 100 or 1000, columns to the left of the decimal point must be filled with a zero. See examples below.

#### **If your child is learning about: Multiplying by 10**

To multiply by 10 we move each digit one place to the left.

Examples       $29.4 \times 10$

H	T	U	•	Tths
2	9	4		

= 2 9 4 • 0      (Tenths column requires a zero)

#### **If your child is learning about: Multiplying by 100**

To multiply by 100 we move each digit two places to the left.

Examples       $29.4 \times 100$

Th	H	T	U	•	Tths
2	9	4			

= 2 9 4 0 • 0      (Tenths column, and units column require a zero)

#### **If your child is learning about: Multiplying by 1000**

To multiply whole numbers by 1000 we move each digit three places to the left.

Example       $29.4 \times 1000$

Tth	Th	H	T	U	•	Tths
2	9	4				

= 2 9 4 0 0 • 0      (Tenths column, units column and tens column require a zero)