

# Lakes Primary School



## Multiplication Policy

## PROGRESSION THROUGH CALCULATIONS FOR MULTIPLICATION

- These standards are age-related expectations and therefore we expect the majority of children to achieve them.
- New learning is likely to be taught to groups rather than the whole class to acknowledge the different learning stages of the children.
- Children need to understand that multiplication is commutative and use this information to rearrange calculations knowing that  $4 \times 6 = 24$  gives the same answer as  $6 \times 4 = 24$ .
- Children need to understand that multiplication is repeated addition.
- Ensure that children understand the = sign means is the same as, not makes, and that children see calculations where the equals sign is in a different position, e.g.  $3 \times 5 = 15$  and  $15 = 3 \times 5$ .
- Children should be encouraged to approximate before calculating and check whether their answer is reasonable

## FOUNDATION STAGE AND YEAR 1

- Encourage children to make a mental picture of the number system in their heads to use for calculation.
- Put emphasis on the use of appropriate mathematical vocabulary in all situations.
- They should experience practical calculation, grouping equal amounts of objects and use a variety of resources within areas of learning.
- Develop markings as appropriate to level of the child., no recording using symbols.
- Solve practical problems that involve combining groups of 2, 5 or 10- if appropriate to ability.
- Refer to as 'lots of'.
- Doubling (FS- simple doubling of objects such as food and numbers to 5. Y1- doubling with numbers to 10 then 20).
- Repeated addition in Year 1.

## YEAR 2

- Continue with repeated addition.
- Describing an array.

$$4 \times 2 = 8$$

☺ ☺ ☺ ☺

$$\begin{array}{c} \text{☺ ☺ ☺ ☺} \\ \text{☺ ☺ ☺ ☺} \end{array} 2 \times 4 = 8$$

- Introduce the multiplication symbol, linking to array.
- When confident, introduce linking the arrays with partitioning.

$$15 \times 2 =$$

Use partitioning  $10 \times 2 = 20$

$$5 \times 2 = 10$$

$$14 \times 2 =$$

Use partitioning  $10 \times 2 = 20$

$$4 \times 2 = + 8$$

$$\underline{\underline{28}}$$

## YEAR 3

- Teach the column method with basic numbers, using the 2, 3, 4, 5, 6 and 10 times tables, TU x U

T U

3 6

X<sub>3</sub> 6

2 1 6

## YEAR 4

### NATIONAL EXPECTATIONS- CHILDREN MUST LEARN TIMES TABLES TO 12 X 12- NOT BEYOND- BY THE END OF YEAR 4

- Consolidate the column method, moving from TU X U to HTU x U.

## YEAR 5

- Continue to use column method, using TU x TU, ThHTU x U and HTU x TU.
- When multiplying TU x TU, ensure the children multiply the units first!
- Ensure children cross out the tens, etc, when added.

$$\begin{array}{r} \text{Th H T U} \\ 4763 \\ \times 4316 \\ \hline 28578 \end{array}$$

$$\begin{array}{r} \text{T U} \\ 47 \\ \times 18 \\ \hline 376 \\ \overset{1}{\times} 470 \\ \hline 846 \end{array}$$

$$\begin{array}{r} \text{H T U} \\ 571 \\ \times 416 \\ \hline 3426 \\ \overset{1}{\times} 5710 \\ \hline 9136 \end{array}$$

## YEAR 6

- As Year 5, consolidate and extend range of numbers.

HTU X HTU  
TU X TU  
ThHTU X TU  
TU X U.†