We aim for all children at Holy Trinity to be able to:

- **Develop mathematical fluency**
- **Reason mathematically**
- **Problem solve**
- **Make connections across mathematical ideas**
- **Apply knowledge in other subject areas**

MATHS INFORMATION BOOKLET

YEAR 3

Here are the strategies that you can use to help develop your child's addition, subtraction, multiplication and division skills.

Addition

Counting on using mental methods.

Bridging (Counting on to the next multiple of 10 then adding on)

 For example 64 + 8 45 + 7 48 + 5
64 + 8 by adding 6 to make 70 and then adding 2
45 + 7 by adding 5 to make 50 and then adding 2
48 + 5 by adding 2 to make 50 and then adding 3

By adding multiples of 10 to a number

First add multiples of 10 followed by the ones.

137 add 42 by counting on in tens 137 147 157 167 177 add 2
145 add 56 by counting on in tens 145 155 165 175 185 195 add 6

By adding multiples of 10's and then adjusting

47 + 29 by adding 30 and then taking away one.
37 + 27 by adding 30 and then taking away three
124 + 48 by adding 50 and then taking away two.

Partitioning to help with addition.

Calculation 74 + 58 =
              70 4 50 8
Add the tens then the ones to the first number.
  70+50=120
    4+ 8 = 12
120+12=132

Column addition

H	T	O
6	4	3
+ 2	5	4
8	9	7

H	T	O
4	6	4
+3	4	7
8	1	1

Subtraction

Counting back in your head

Put the larger number in your head and count back. For example what is 137 take away 8?
Put 137 in your head and count back 8?
Subtracting by bridging to the previous multiple of 10 and then counting back.
72 - 8 by subtracting 2 to give 70 and then subtract the remaining 6

86 - 8 by subtracting 6 to give you 80 and then subtracting the remaining 2.

Partitioning to help with subtraction.

Calculation 65 - 3 2 =

$$\underset{60\ 5\ \ \ 30\ 2}{\diagup\diagdown\ \diagup\diagdown}$$

Only partition the <u>second</u> number
Take away the tens then take away the ones from that number.
60-30= 30
 5 - 2= 3
30+3=33

Column Subtraction –Decomposition

H	T	O
9	6 7̷	1 4
- 6	5	5
3	1	9

Multiplication

Counting on in 2's ,3's, 4's, 5's, 6's, 8,s 10's, 50's and 100's from any number.

Repeated addition

For example: 6 x 8 = 6 + 6+ 6 + 6 + 6 + 6 + 6 + 6

Knowing 2, 3, ,4 , 5, 6 and 8 times tables.

Recite the times tables and then ask different questions such as

- If I have 9 5p coins how much do I have?

- If I have 30p in 10p coins how many coins do I have?

- What is 8 multiplied by six?

- How many 6's make 42?

Doubling the answers to find another answer.

For example to find out 7 X 4 find 7 X 2 and then double the answer. To find 20 X 7 find 10 X 7 and then double it.

Multiplying by partitioning.

Calculating 24 X 4 by partitioning 20 and 4 and working out 20 X4 and then 4x4 and then adding them together.

X	20	4
4	80	16

$$\begin{array}{r} 8\ 0 \\ +\ 1\ 6 \\ \hline 9\ 6 \end{array}$$

Division

Division as sharing

42 crayons are divided equally between 6 pots. How many crayons are there in each pot?

A 80cm piece of string is cut into four equal pieces. How long is each piece?

Division by partitioning.

Calculating 96 ÷ 3 by partitioning 96 to 90 and 6 and dividing each part by 3 to get the answer 32

$$90 \div 3 = 30$$
$$6 \div 3 = \underline{\ 2\ }$$
$$3\,2$$

Try and encourage your child to explain what they are doing and talk through how they are working out the answers.

Encourage your child to jot down their workings out and to draw pictures or diagrams to help make sense of a problem.

Give your child a number problem to solve.

Talk through the question and ask your child which operation is needed to solve the problem.

For example

Jake wants to buy a comic costing £1. He saves 25p one week and 40p the next. How much more money does he need to buy the comic.

A piece of tape is 100cm long. I cut off 7 pieces each 5cm long, how much tape is left?

There are 12 stamps in a sheet. Each stamp costs 28p I buy a quarter of the sheet.
How many stamps do I have?

NOTES