Maths Booklet for Parents

Year 5

Merchant Taylors' Junior Boys' School

MERCHANT TAYLORS' SCHOOLS

For Boys and Girls aged 4 to 18 years

Introduction

The purpose of this booklet is to help you support your child's progress in Mathematics.

Setting Out of Work

- Every piece of work should have a date, title and the textbook and page that is being used.
- Each title should be underlined with a pencil and a ruler.
- Exercise books should contain appropriate sized squares.
- Exercise book pages to be folded in half, where possible. Boys to work down left-hand side of page first, followed by right-hand side.
- Boys should leave at least one line between questions (to avoid errors).
- Boys should write answers to problems questions in the form of a sentence, underneath their working out.

Times Tables

The importance of your son learning his times tables cannot be stressed highly enough. Number bonds are at the core of mathematics and if your son is not confident with them, this may hold back his progress in understanding and using new/revised concepts.

Boys in Years 5 and 6 need to practise their tables from 2-12 regularly.

On the next page is a times tables grid, which may help your son to revise his multiplication facts.

MULTIPLICATION CHART
TO 12X12

X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Place Value

Place value indicates the value of each number. For example, when given the number 723 your son should know that this indicates:

7 hundreds 2 tens 3 units

Place value also indicates where numbers should be placed within a sum. This helps your son to line each of the numbers up in the correct columns and reduces the chance of errors.

Your son should be able to tell you the value of each of the numbers in the chart.

hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	units	• decimal	tenths	hundredths	thousandths	ten thousandths
5	3	2	0	0	3	6	0	7					

The Four Operations

Addition

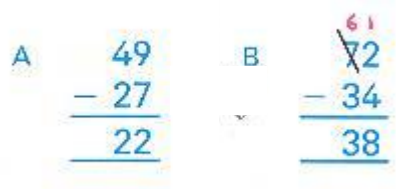
The written method your son will be taught is the 'under the doorstep' method of carrying with addition, short multiplication and the final stage of long multiplication, eg.

A
$$\begin{array}{r} 23 \\ +\ 46 \\ \hline 69 \end{array}$$

B
$$\begin{array}{r} 47 \\ +\ 29 \\ \hline 76 \\ \scriptstyle 1 \end{array}$$

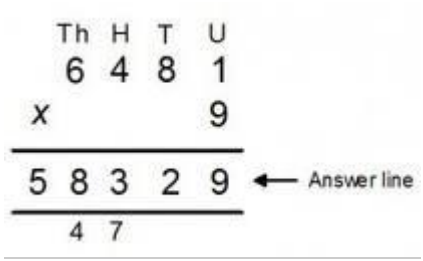
Subtraction

Your son will be taught the decomposition method of subtraction.



Multiplication

The boys will be taught the short multiplication method.



a) Multiply the 9 by the 1 in the unit's column. This equals 9 and is placed in the answer line, underneath the units

b) Multiply the 9 by the 8 in the ten's column. This equals 72. Place the 2 in the answer line, underneath the tens. The seven goes below the answer line, under the hundreds.

c) Multiply the 9 by the 4 in the hundred's column. This equals 36. We add on the carrying figure (7), to get 43. Place the 3 in the answer line, underneath the hundreds. The four goes below the answer line, under the thousands.

d) Multiply the 9 by the 6 in the thousands column. This equals 54. We add the carrying figure (4), to get 58. This is written in the answer line.

Long Multiplication

To calculate 158 × 67:

First, multiply by 7 (units):

158
x 67
1106

Then add a zero on the right-hand side of the next row. This is because we want to multiply by 60 (6 tens), which is the same as multiplying by 10 and by 6.

Now multiply by 6:

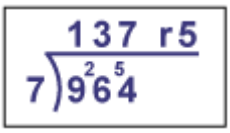
158
X **6**7
1106
9480

Now add your two rows together, and write your answer.

158
x **6**7
1106
9480
10586 So the answer is **10586.**

Division

- Division by a single digit divisor to be carried out as follows:



a) 7 goes into 9 once, remainder 2, so we put a '1' above the 9 and carry the 2.

b) 7 goes into 26 three times, remainder 5, so we put a '3' over the 6 and carry 5.

c) 7 goes into 54 seven times, remainder 5 so we put a '7' over the 4 and have a remainder of 5.

Therefore, 964 ÷ 7 = 137 r 5

Dividing by a two digit number

EXAMPLE – 24) 786

Step 1 Not enough hundreds. (Only 7)

24) 786

Step 2 Think of 7 hundreds and 8 tens as 78 tens.
Divide (78 ÷ 24 = 3)
Subtract 3 lots of 24 (3 x 24 = 72)

```
   3_
24 ) 786
 -- 720      Remember: these are 72 tens
    6        tens left over
```

Step 3 Add the units to the left-over tens

```
   3_
24 ) 786
 -- 720
    66
```

Step 4 Think of the 6 tens and 6 units as 66 units
Divide (66 ÷ 24 = 2)
Subtract 2 lots of 24 (2 x 24 = 48)

```
   32
24 ) 786
 -- 720
    66
 -- 48
    18
```

Step 5 Put the remaining units with the answer

```
   32  R18
24 ) 786
 -- 720
    66
 -- 48
    18
```

Problem Solving

Your son will often bring home work which requires him to solve problems. These steps are a guideline to help him to complete problems questions

A Read the problem twice and find the question.
B What are the facts?
C Decide what to do (e.g. four operations).

D Answer the question, including working out.
(Write a story answer underneath your working.)

E Does your answer seem right?
(Check it by putting it back into the problem.)

Time
12/24 Hour Clock

Below are a clock and a chart, which will help your son to convert between the 12 hour and the 24 hour clock