Information Booklet for Parents

Maths

Year 4

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 should be folded in half, where possible.
- Boys should 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 problem 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.

At the end of Year 3, all boys need to know their 2, 3, 4, 5, 10 and 11 times tables. Boys in year 4 need to know their tables from 2 to 12. Boys in Years 5 and 6 still need to practise their tables regularly.

Your son should practise his times tables regularly, for short periods of time. On the next page is a times tables grid which will help your son when he is revising 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.

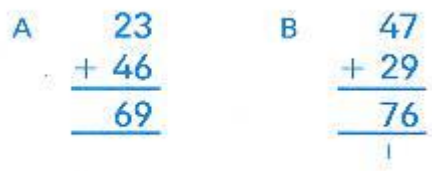
Your son should be able to tell you the value of each of the numbers in the chart.

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

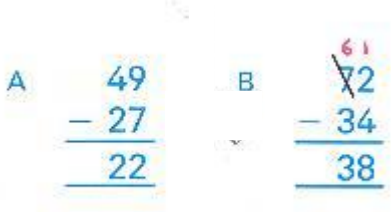
Addition

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.

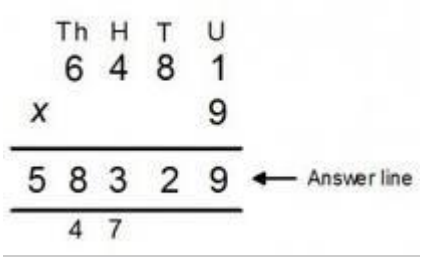


Subtraction

Your son will be taught the decomposition method of subtraction.



Multiplication



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 67
 1106
9480
```

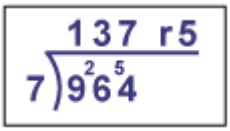
Now add your two rows together, and write your answer.

```
  158
x 67
 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
```

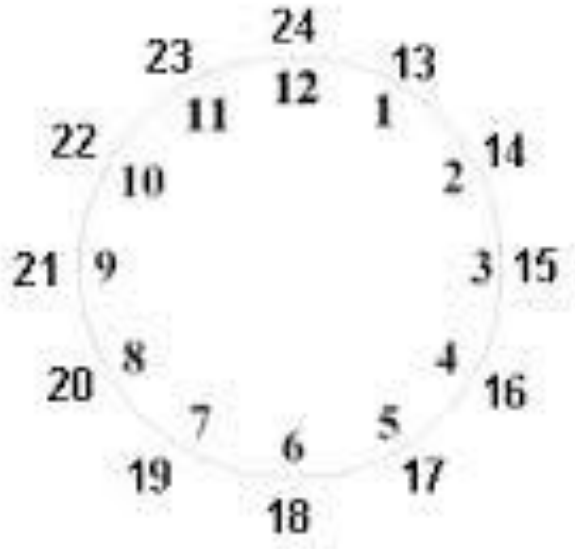
Problem Solving

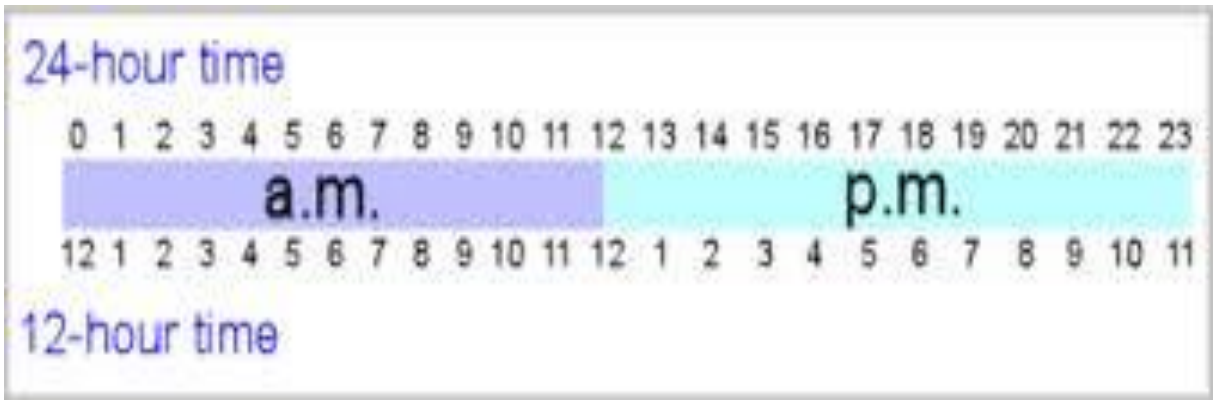
Your son will often bring home work which requires him to solve problems. These steps are a guideline to help him to complete problem questions

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

Time
12/24 Hour Clock

The clock and chart will help your son to convert 12 hour to 24 hour clock times and vice versa.





Talk about and involve children in the situations in which you use Maths in everyday life.

Play games involving numbers and/or logic, such as card games, dominoes, darts, draughts, chess etc.

A good knowledge and quick recall of times tables is essential to children's mathematical progress. The children are taught up to 12 x 12. The target is for all children to know their tables by the end of year four. It is very important that children practise their times tables daily at home.

Play open-ended activities, e.g. The answer is 25, what is the question?
How can you use combinations of 3 and 6 to make different numbers? (Use each number as many times as you like with addition, subtraction, multiplication or division.)

Encourage your son to help you weigh and measure when cooking or converting a recipe.

Choose some food items out of the cupboard. Try to put the objects in order of weight by feel alone. Then check by looking at the weights on the packets.

Talk about time, e.g. How long is it until lunch time? The journey takes 2½ hours, when will we arrive?

Allow your child to handle amounts of money when shopping and encourage them to work out total costs, working out change, checking receipts.

Play 'guess my shape'. You think of shape. Your son asks questions to try to identify it but you can only answer 'yes' or 'no'.

Hunt for right angles around your home. Can your child spot angles that are bigger or smaller than a right angle?

Look for symmetrical objects. Help your child to paint or draw symmetrical pictures/patterns.

Practise measuring the lengths and heights of objects. Help your child use different rulers or tape measures correctly. Encourage them to estimate before measuring.