Maths Summer Intervention Booklet

Information about the intervention programmes

In September we assess our Year 7 students on their arithmetic and reasoning skills. The questions on the assessment will be similar to those that students have seen at Primary School. This assessment will help us to identify if there are any Mathematical skills yet to be secured and from this we will decide if any intervention is needed.

There are **three** different types of intervention programmes. We look at each student individually to determine if intervention is needed, and if so, which programme would be most beneficial to them.

Wave 2 intervention is for those students who have very specific Mathematical skills yet to be secured. These students are put into small groups with other students who need help with similar skills. Lessons are focused on developing those specific skills. This intervention usually lasts for one half term.

The **Numeracy Programme** is for those students who need a little more help with their Maths and they may have **several** skills with which they need more support. These students are placed into small groups and these classes cover a broader range of topics. This intervention may last for the whole school year.

Wave 3 is for students who need a little more help with their maths and would benefit from working in a very small group setting. The work is focused around building basic Mathematical skills. This intervention lasts for the whole school year.

If your child is selected for an intervention we will contact you to discuss this further.

Supporting Your Child

www.mymaths.co.uk.   Username: lytham

                                        Password: rhombus

Below are details of the pathways to follow to get to relevant tutorials which may benefit your child. You may need to enable **flash player** on your computer for this website to work.

(Unfortunately this website does not work on phones or tablet computers unless you download an app called 'Puffin Academy'. You can access and log in to 'MyMaths' within this app.)

Tasks to complete

Each task has a reference to a guide on 'MyMaths' which may be useful. There are worked examples and then questions to be completed. Use 'MyMaths' or the worked examples if needed. Answers are provided at the back of the booklet.

If you have any concerns regarding Maths Intervention contact:

Intervention Co-ordinator: Mrs Pennington   (Joanne.Pennington@lythamhigh.lancs.sch.uk)

Numeracy Co-ordinator: Miss Quirk   (Sarah.Quirk@lythamhigh.lancs.sch.uk)

TASK 1   Column Addition

Work through: Mymaths - number – add subtract written – introducing column addition

Examples:

57 + 25 =

```
  5 7
+ 2 5
  8 2
  1
```

319 + 282 =

```
  3 1 9
+ 2 8 2
  6 0 1
  1 1
```

Now try these:

39 + 7 =	47 + 36 =	68 + 23 =
417 + 248 =	384 + 96 =	193 + 2973 =

TASK 2   Column Subtraction

Work through: Mymaths– number– add subtract written– introducing column subtraction

Examples:

43 – 17 =

```
  ³4̶ ¹3
-  1 7
   2 6
```

628 – 249 =

```
    ¹
  5̶6̶ ¹2̶ ¹8
-  2 4 9
   3 7 9
```

Now try these:

34 – 9 =	78 – 13 =	56 – 29 =
343 – 176 =	456 – 168 =	603 – 237 =

TASK 3   **Decimal Addition**

Work through: Mymaths – number – decimals – adding decimals in columns intro

Examples:

5.3 + 2.1 = 7.4   6.7 + 2.9 =

$$
\begin{array}{r}
6\,.\,7 \\
+\,2\,.\,9 \\
\hline
9\,.\,6 \\
\scriptstyle 1
\end{array}
$$

8.6 – 3.8 =   8.43 – 3.66 =

$$
\begin{array}{r}
{}^{7}\!\!8\,.\,{}^{1}6 \\
3\,.\,8 \\
\hline
4\,.\,8
\end{array}
$$

$$
\begin{array}{r}
{}^{7}\!\!8\,.\,{}^{1}\!\!3\!\!4\,{}^{1}3 \\
-\,3\,.\,6\,6 \\
\hline
4\,.\,7\,7
\end{array}
$$

Now try these:

7.2 + 3.4 =	5.4 – 2.6 =	9.8 + 3.4 =
17.53 + 2.67 =	9.64 – 3.98 =	8.04 – 5.16 =

TASK 4   **Multiplication**

Read through: Mymaths – number – multiply divide written – short multiplication
                Mymaths – number – multiply divide written – multiply double digits
                Mymaths – number – multiply divide written - multiply triple digits

Examples:

24 x 3 =   117 x 14 =

x	3
20	**6 0**
4	**1 2**
	7 2

+

x	10	4	Total
100	**1000**	**400**	1 4 0 0
10	**100**	**40**	1 4 0
7	**70**	**28**	9 8 +
			1 6 3 8

26 x 15 =   328 x 42 =

$$
\begin{array}{r}
2\,6 \\
\times\,1\,5 \\
\hline
1\,3\,0 \\
2\,6\,0 \\
\hline
3\,9\,0
\end{array}
$$

$$
\begin{array}{r}
3\,2\,8 \\
\times\ \ 4\,2 \\
\hline
6\,5\,6 \\
1\,3\,1\,2\,0 \\
\hline
1\,3\,7\,7\,6
\end{array}
$$

Now try these:

27 x 6 =	34 x 21 =	57 x 28 =
123 x 16 =	445 x 32 =	607 x 18 =

TASK 5   Multiplying Decimals

Work through: Mymaths – number – decimals – starting to multiply decimals

Mymaths – number – decimals – multiply decimals by whole numbers

Examples:

3.17 x 100 = 317   43.6 x 100 = 4360

2.4 x 4 =   1.12 x 7 =

Change to   24 x 4 and draw the grid   Change to   112 x 7 and draw the grid

x	4
20	**8 0**
4	**1 6**
	9 6

x	7
100	**7 0 0**
10	**7 0**
2	**1 4**
	7 8 4

This answer is 10 times too big   This answer is 100 times too big as
as we multiplied by 10 at the beginning.   we multiplied by 100 at the beginning.

2.4 x 4 = **9.6**   1.12 x 7 = **7.84**

Now try these:

7.34 x 100 =	8.05 x 10 =	11.62 x 1000 =
3.6 x 6 =	2.7 x 4 =	2.15 x 7 =

TASK 6   **Division**

Work through: Mymaths – number – multiply divide written – short division

Examples:

$168 \div 4 =$

$2782 \div 13 =$

```
     0 4 2
  4 | 1¹6 8
```

```
        0 2  1  4
  13 | 2²7 ¹8 ⁵2
```

Now try these:

$155 \div 5 =$	$234 \div 3 =$	$438 \div 6 =$
$2520 \div 8 =$	$1452 \div 11 =$	$5894 \div 14 =$

TASK 7   **Add and subtract fractions**

Work through: Mymaths – number – fractions – adding subtracting fractions
                    (pages 1-4 only)

Examples:

$\dfrac{5}{9} + \dfrac{2}{9} = \dfrac{7}{9}$

$\dfrac{3}{7} - \dfrac{1}{7} = \dfrac{2}{7}$

If the denominators are different, find a common denominator.

If possible, simplify your answer.

$\dfrac{1}{5} + \dfrac{3}{10} = \dfrac{2}{10} + \dfrac{3}{10} = \dfrac{5}{10} = \dfrac{1}{2}$

Now try these, leaving your answers in their simplest form:

$\dfrac{3}{5} + \dfrac{1}{5} =$	$\dfrac{5}{8} - \dfrac{2}{8} =$	$\dfrac{3}{10} + \dfrac{3}{10} =$
$\dfrac{3}{4} - \dfrac{1}{2} =$	$\dfrac{1}{3} + \dfrac{1}{6} =$	$\dfrac{7}{12} - \dfrac{1}{3} =$

TASK 8   Fractions of amounts

Work through: Mymaths – number – fractions – fractions of amounts

Examples:

$\frac{1}{2}$ of $24 = 24 \div 2 = 12$ $\qquad\qquad$ $\frac{1}{4}$ of $32 = 32 \div 4 = 8$

$\frac{3}{4}$ of $36 = 36 \div 4 \times 3 = 27$

Now try these:

$\frac{1}{2}$ of $28 =$	$\frac{1}{2}$ of $36 =$
$\frac{1}{3}$ of $18 =$	$\frac{1}{4}$ of $44 =$
$\frac{3}{4}$ of $24 =$	$\frac{2}{3}$ of $15 =$

Answer page

Task 1

39 + 7 = 46

47 + 36 = 83

68 + 23 = 91

417 + 248 = 665

384 + 96 = 480

193 + 2973 = 3166

Task 2

34 – 9 = 25

78 – 13 = 65

56 – 29 = 27

343 – 176 = 167

456 – 168 = 288

603 – 237 = 366

Task 3

7.2 + 3.4 = 10.6

5.4 – 2.6 = 2.8

9.8 + 3.4 = 13.2

17.53 + 2.67 = 20.2

9.64 – 3.98 = 5.66

8.04 – 5.16 = 2.88

Task 4

27 x 6 = 162

34 x 21 = 714

57 x 28 = 1596

123 x 16 = 1968

445 x 32 = 14240

607 x 18 = 10926

Task 5

7.34 x 100 = 734

8.05 x 10 = 80.5

11.62 x 1000 = 11620

3.6 x 6 = 21.6

2.7 x 4 = 10.8

2.15 x 7 = 15.05

Task 6

155 ÷ 5 = 31

234 ÷ 3 = 78

438 ÷ 6 = 73

2520 ÷ 8 = 315

1452 ÷ 11 = 132

5894 ÷ 14 = 421

Task 7

$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$

$\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$

$\frac{3}{5} + \frac{3}{10} = \frac{6}{10} = \frac{3}{5}$

$\frac{3}{4} - \frac{1}{2} = \frac{3}{4} - \frac{2}{4} = \frac{1}{4}$

$\frac{1}{3} + \frac{1}{6} = \frac{2}{6} + \frac{1}{6} = \frac{3}{6} = \frac{1}{2}$

$\frac{7}{12} - \frac{1}{3} = \frac{7}{12} - \frac{4}{12} = \frac{3}{12} = \frac{1}{4}$

Task 8

$\frac{1}{2}$ of 28 = 14

$\frac{1}{2}$ of 36 = 18

$\frac{1}{3}$ of 18 = 6

$\frac{1}{4}$ of 44 = 11

$\frac{3}{4}$ of 24 = 18

$\frac{2}{3}$ of 15 = 10