

## Maths Planning and Ideas



**Week Commencing: 15.6.20**

**Year Group: Year 5**

This week's planning will be recapping previous learning from earlier this year. The idea behind this is to consolidate children's understanding of key concepts in order to help prepare them for next year. We are aware that some children may already have a sound understanding of some of these areas of learning, while others will still need to practise them. I have tried to include examples of Fluency and Reasoning and Problem Solving activities similar to what we complete in class. For any children who are very confident in working through the worksheets, I have added some Dive Deeper activities in the blue boxes for each day to deepen children's understanding

Times Table Rockstars website - <https://trockstars.com/>

	Monday	Tuesday	Wednesday	Thursday	Friday
Area of Learning	<b>LC: Can you add numbers using column addition?</b>	<b>LC: Can you subtract numbers using column subtraction?</b>	<b>LC: Can you round numbers to estimate answers?</b>	<b>LC: Can you use inverse operations?</b>	<b>Arithmetic Test</b>
Activity	<p>Starter – Times Table Rockstars activities</p> <p><b>Main Teaching</b> This lesson is all about adding numbers using column addition. It will include exchanging (eg 'numbers on the doorstep!') Watch the video and see how column addition looks using a place value grid and counters. <a href="https://vimeo.com/425568996">https://vimeo.com/425568996</a></p> <p>Fluency – complete the column addition questions. You may want to work them out on a scrap piece of paper.</p> <p>Problem Solving – solve the football problem</p> <p>Dive Deeper – work out what the missing number is from the box.</p>	<p>Starter – Times Table Rockstars activities</p> <p><b>Main Teaching</b> This lesson is all about subtracting numbers using column subtraction. It will include exchanging ('borrowing'). Watch the video <a href="https://vimeo.com/425569172">https://vimeo.com/425569172</a></p> <p>Fluency - complete the column subtraction questions. You may want to work them out on a scrap piece of paper.</p> <p>Reasoning – look carefully at the column subtraction calculations. Both girls have had a mistake. Explain the individual mistakes they have made.</p> <p>Dive Deeper – complete the puzzle.</p>	<p>Starter – Times Table Rockstars activities</p> <p><b>Main Teaching</b> This lesson is all about using rounding to estimate answers. This is a very useful skill to learn, even though it might seem unusual at first. Watch the video <a href="https://vimeo.com/425569901">https://vimeo.com/425569901</a></p> <p>Fluency – estimate the answers to the questions about the table.</p> <p>Round the answers to the nearest 1000 to estimate.</p> <p>Reasoning – read the estimates that the children have made.</p> <p>Answer the questions about them.</p> <p>Dive Deeper – use estimation to spot the mistake</p>	<p>Starter – Times Table Rockstars activities</p> <p><b>Main Teaching</b> Thursday's lesson is about inverse operations. Remember what we say in class – inverse means the opposite. Watch the video <a href="https://vimeo.com/425575598">https://vimeo.com/425575598</a></p> <p>Fluency – match up the inverse operations</p> <p>Reasoning – can you work out where Tommy has gone wrong with his inverse calculation?</p> <p>Problem Solving – What number did Alex start with? Use inverse operations to 'work backwards' to find out the answer</p> <p>Dive Deeper – find out the missing number in the bar model.</p>	<p>Starter – Times Table Rockstars activities</p> <p>Complete the arithmetic test. You may want to complete this on a scrap piece of paper as there are lots of pages to print out. The answers are included at the end.</p>

Monday Worksheet

<b>1</b> $\begin{array}{r} 4078 \\ + 7806 \\ \hline \\ \hline \end{array}$	<b>2</b> $\begin{array}{r} 3020 \\ + 7033 \\ \hline \\ \hline \end{array}$	<b>3</b> $\begin{array}{r} 8389 \\ + 2094 \\ \hline \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 1938 \\ + 8398 \\ \hline \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 8784 \\ + 9969 \\ \hline \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 8580 \\ + 1887 \\ \hline \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 9771 \\ + 8489 \\ \hline \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 5602 \\ + 9250 \\ \hline \\ \hline \end{array}$

<b>a)</b> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td>4</td><td> </td><td>1</td><td> </td><td> </td></tr> <tr><td>+</td><td>2</td><td> </td><td>8</td><td> </td><td>4</td><td> </td></tr> <tr><td> </td><td>8</td><td>9</td><td>9</td><td>2</td><td>6</td><td> </td></tr> </table>										4		1			+	2		8		4			8	9	9	2	6		<b>b)</b> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td>4</td><td> </td><td>9</td><td> </td><td> </td></tr> <tr><td>+</td><td>2</td><td> </td><td>8</td><td> </td><td>4</td><td> </td></tr> <tr><td> </td><td>8</td><td>9</td><td>9</td><td>2</td><td>6</td><td> </td></tr> </table>										4		9			+	2		8		4			8	9	9	2	6	
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The table shows the number of home and away fans attending three football matches.

Match	Home fans	Away fans
1	53,640	12,930
2	42,630	18,340
3	35,480	32,490

Which match had the greatest total attendance?

Monday Answers

1	11884
2	10053
3	10483
4	10336
5	18753
6	10467
7	18260
8	14852

Which match had the greatest total attendance?

3

Complete the additions.

a)

		6	4	1	1	2	
	+	2	5	8	1	4	
		8	9	9	2	6	

b)

		6	4	0	9	2	
	+	2	5	8	3	4	
		8	9	9	2	6	

Tuesday Worksheet

1	$\begin{array}{r} 7894 \\ - 3918 \\ \hline \\ \hline \end{array}$	2	$\begin{array}{r} 7425 \\ - 6773 \\ \hline \\ \hline \end{array}$	3	$\begin{array}{r} 9882 \\ - 6443 \\ \hline \\ \hline \end{array}$	4	$\begin{array}{r} 6746 \\ - 5816 \\ \hline \\ \hline \end{array}$
5	$\begin{array}{r} 6873 \\ - 5175 \\ \hline \\ \hline \end{array}$	6	$\begin{array}{r} 7043 \\ - 5878 \\ \hline \\ \hline \end{array}$	7	$\begin{array}{r} 7861 \\ - 7200 \\ \hline \\ \hline \end{array}$	8	$\begin{array}{r} 9803 \\ - 1985 \\ \hline \\ \hline \end{array}$

Mr Hall has written these subtractions on the board.

$$45,541 - 25,865$$

$$68,945 - 34,758$$

**Rosie's workings**

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

**Whitney's workings**

$$\begin{array}{r} 6\ 8\ 9\ 4\ 5 \\ - 3\ 4\ 7\ 5\ 8 \\ \hline 3\ 4\ 2\ 1\ 3 \end{array}$$

Explain the mistakes that Rosie and Whitney have made.

Here are some digit cards.



Ron makes a 4-digit number with the cards.

Eva makes a 4-digit number with the cards.

The difference between their numbers is between 1,000 and 3,000

What numbers could Ron and Eva have made?

Tuesday Answers

1	3976
2	652
3	3439
4	930
5	1698
6	1165
7	661
8	7818

Rosie has put the larger number under the smaller number.

Whitney has completed the tens column incorrectly (4-5)

There are multiple answers you could give here. Make sure the answers are four digit numbers and the difference between them is between 1000 and 3000 (eg, 8591 and 9815).

Wednesday Worksheet

Use your rounding to estimate the answers to the following questions.

It might be a good idea to round to the nearest 1000.

The table shows the number of people of different ages living in three towns.

	Town A	Town B	Town C
Under 16	3,765	8,283	10,301
16 to 65	35,835	14,100	24,554
Over 65	1,949	9,821	656

- How many people live in Town A \_\_\_\_\_
- How many people live in Town B \_\_\_\_\_
- How many people live in Town C \_\_\_\_\_
- How many under 16 year olds live in all towns \_\_\_\_\_
- How many 16-65 year olds live in all towns \_\_\_\_\_
- How many over 65 year olds live in all towns \_\_\_\_\_

Mr Khan writes this question on the board.

$$7,395 - 711$$

Dexter's estimate is  $7,000 - 1,000 = 6,000$

Whitney's estimate is  $7,400 - 700 = 6,700$

Whose estimate do you agree with? \_\_\_\_\_

Explain your answer.

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Work out the actual answer.

Whose estimate was the closest? \_\_\_\_\_

Mo has made a mistake with this calculation.

$$\begin{array}{r}
 6 \ 13 \ 12 \\
 1 \ ~~7~~ \ ~~4~~ \ ~~3~~ \ 12 \\
 - \quad 8 \ 4 \ 8 \ 7 \\
 \hline
 1 \ 8 \ 9 \ 4 \ 5
 \end{array}$$

Use rounding and approximating to show how you know.

Wednesday Answers

Fluency – I rounded these to the nearest 1000 –  
if you rounded them to a different number  
your answers will be different to mine.

- a) 42,000
- b) 32,000
- c) 36,000
- d) 22,000
- e) 75,000
- f) 13,000

Mo has made a mistake with this calculation.

$$\begin{array}{r} 6 \text{ } 13 \text{ } 12 \\ 1 \text{ } \cancel{7} \text{ } \cancel{4} \text{ } \cancel{3} \text{ } 12 \\ - \quad 8 \text{ } 4 \text{ } 8 \text{ } 7 \\ \hline 1 \text{ } 8 \text{ } 9 \text{ } 4 \text{ } 5 \end{array}$$

Use rounding and approximating to show how you know.

$$17,000 - 8,000 = 9,000$$

Mo's answer is too big.

Mr Khan writes this question on the board.

$$7,395 - 711$$

Dexter's estimate is  $7,000 - 1,000 = 6,000$

Whitney's estimate is  $7,400 - 700 = 6,700$

Whose estimate do you agree with? Both

Explain your answer.

They have both correctly estimated they have just rounded to different things.

Work out the actual answer.

Whose estimate was the closest? Whitney





Thursday Answers

Match the inverse calculations.

$2,482 + 6,428 = 8,912$

$5,271 + 4,212 = 9,483$

$5,984 - 3,172 = 2,812$

$8,912 - 6,428 = 2,482$

$9,483 - 5,271 = 4,212$

$8,912 - 5,271 = 3,641$

$8,912 = 3,641 + 5,271$

$5,984 = 3,172 + 2,812$

Tommy checks his calculation using the same addition.

Is this a good idea? Talk about it with a partner.

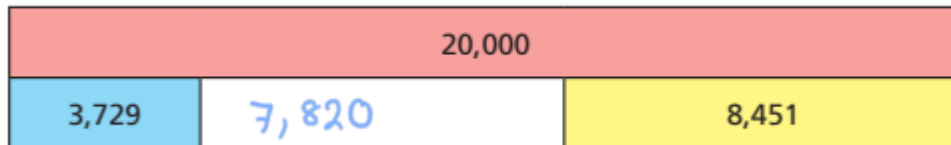
What calculation should he do? Correct Tommy's answer.

Tommy should do  $91,380 - 12,350$  and realise he is wrong.

	1	2	3	5	0	
		7	9	0	3	
	2	0	2	5	3	

20,253

Here is a bar model.



You could do  $20,000 - 8451 - 3729$  OR  $3729 + 8451 = 12,180$  then  $20,000 - 12,180$

Alex thinks of a number.



When I add 4,550 to my number I get 7,460

What number did Alex start with? 2,910