Maths Planning and Ideas

Week Commencing: 01.06.20

Year Group: Year 6

This week, we are going to be revisiting some of the key learning that the children will need as they prepare for their next year of schooling. This may mean that they are consolidating learning that they already understand or are perhaps having another go at some of the trickier topics. The subject areas may also jump around a little but this sequence of lessons has been put together in order to support our oldest children as much as possible before they head to secondary school.

	Monday	Tuesday	Wednesday	Thursday	Friday
Area of Learning	**Arithmetic** LC: Can you review your arithmetic understanding?	LC: Can you convert fractions to percentages?	LC: Can you find equivalent fractions, decimals and percentages?	LC: Can you order fractions, decimals and percentages?	LC: Can you find percentages of an amount?
		For these lessons, we will be using the Home Learning Section of the White Rose Maths Scheme and website: *https://whiterosemaths.com/homelearning/year-6/* *Each day there will be a short video to watch and activities to complete, which will be provided below. The dates of these lessons may not match the date that chn are completing the work so please check to make sure that you have selected the correct lesson, shown in* **green** *on this plan.* *Any problems, just let Mrs Shepherd know!*			
Activity	Starter: Complete the 10 mental maths questions for Monday (provided below) **Main Activity**	Starter: Complete the 10 mental maths questions for Tuesday (provided below) **Main Activity** Watch the video for **Summer Term Week 6 (wb 01.06.20) – Lesson 1** to help go over	Starter: Complete the 10 mental maths questions for Wednesday (provided below) **Main Activity** Watch the video for **Summer Term Week 6 (wb 01.06.20) – Lesson 2**	Starter: Complete the 10 mental maths questions for Thursday (provided below) **Main Activity** Watch the video for **Summer Term Week 6 (wb 01.06.20) – Lesson 3** to	Starter: Complete the 10 mental maths questions for Friday (provided below) **Main Activity** Watch the video for **Summer Term Week 6 (wb 01.06.20) – Lesson 4** to help refresh your

Thank you to everyone you have provided feedback from the last few Arithmetic Papers that the children have completed – we can now see which areas are proving more challenging and will aim to include more work on this in the next few weeks.

These practise papers also seem to be providing a good range of challenge for the chn and cover a wide range of topics, so we are going to keep using them as we move forward.

This week, please complete **Paper 3** and mark your own work using the answers provided.

Also, take a look back at the scores you have been achieving on these papers – hopefully, you can see an improvement over the weeks.

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how to convert fractions into percentages:

Lesson 1 - Fractions to percentages

Independent Activity
In class, we have looked at some of the key facts that you will need to know, such as:

- Half = 50%
- Quarter = 25%
- Three Quarters = 75%
- Fifth = 20%
- Tenth = 10%

We have also thought about how we can use our knowledge of fractions to decimals to create fractions where the denominator is 100 – these are much easier to convert to a %.

Have a go at the questions below and the problem solving – some will be harder than others.

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to help find fractions, decimals and percentages that are equal to each other:

Lesson 2 - Equivalent FDP

Independent Activity
These questions link to all of the work that we have done on fractions, decimals and percentages. You have been very confident when looking at these in turn but now we need to develop links between them.

Here is a quick little game to support your learning as well: https://mathsframe.co.uk/en/resources/resource/120/match_fractions_decimals_and_percentages#.UCdcd2MsCEY

Have a go at the questions below – some will be harder than others.

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help order a mixture of fractions, decimals and percentages:

Lesson 3 - Order FDP

Independent Activity
Some of these questions are challenging because they require you to do a little bit of extra work for each one. Now that you are able to convert fractions to percentages or deciamls (and hopefully back again), think about which one of these methods will be the most efficient to help you to answer these questions.

E.g.. if I need to compare 3/5 and 67% - I know that 3/5 is the same as 60%, so making the comparison is easier.

Have a go at the questions below – some will be harder than others.

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memory on how to find percentages of a given amount:

Lesson 4 - Percentages of amounts

Independent Activity
We have completed a lot of work on percentages over the last few weeks, in activities and in mental maths. Now, we need to use that knowledge to tackle more complex problems but remember, the core process remains the same.

Have a go at the questions below – some will be harder than others.

| | **Independent Activity**

Complete the arithmetic test linked below:

https://myminimaths.co.uk/year-6-arithmetic-practice-papers/

Scroll down until you can select **Paper 3** – the answers are also provided so that you can mark your work.

Remember to give yourself between 35-40mins to complete the paper. | | | | |

Starter Activities

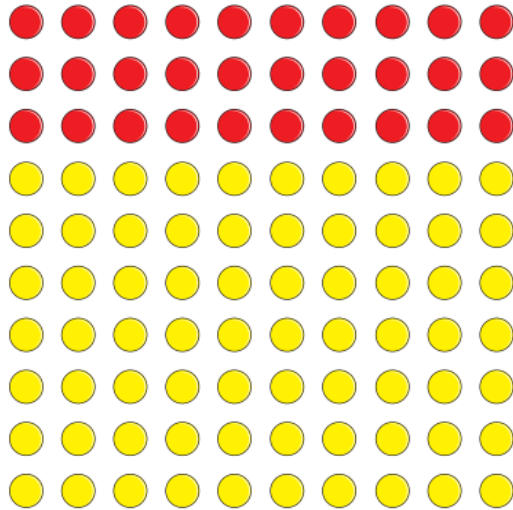| Monday	Tuesday	Wednesday	Thursday	Friday
1. 613 x 218	11. 709 x 970	21. 348 x 682	31. 565 x 444	41. 207 x 184
2. 24 x ? = 144	12. 18 x ? = 162	22. 72 x ? = 360	32. 33 x ? = 231	42. 41 x ? = 328
3. 72 x 100	13. 81 x 10	23. 56 x 1000	33. 29 x 10	43. 38 x 100
4. Which is bigger - 7/10 or 0.6?	14. Which is bigger - 2/10 or 0.4?	24. Which is bigger - 3/10 or 0.52?	34. Which is bigger - 9/10 or 0.87?	44. Which is bigger - 5/10 or 0.50?
5. Find 1/4 of 20	15. Find 1/5 of 30	25. Find 2/3 of 60	35. Find 4/10 of 20	45. Find 3/5 of 25
6. Simplify 8/10	16. Simplify 12/48	26. Simplify 10/30	36. Simplify 9/27	46. Simplify 6/9
7. £3.16 + 85p	17. £2.87 + 97p	27. £17.24 + 33p	37. £0.65 + 101p	47. £0.13+ 300p
8. Give a factor of 14	18. Give a factor of 24	28. Give a factor of 40	38. Give a factor of 50	48. Give a factor of 120
9. Give a multiple of 7	19. Give a multiple of 9	29. Give a multiple of 3	39. Give a multiple of 12	49. Give a multiple of 15
10. 1400 ÷ 200	20. 3200 ÷ 200	30. 800 ÷ 200	40. 3000 ÷ 200	50. 4200 ÷ 200

If you cannot print off these questions, please don't worry – simply have a go at writing the calculations and answers in your book or on a piece of paper!

Monday 01.06.20   **Arithmetic Paper available to download using link provided**

1

2 a) Shade the hundred squares to represent the fractions.

$\frac{40}{100}$

$\frac{65}{100}$

$\frac{1}{2}$

$\frac{7}{10}$
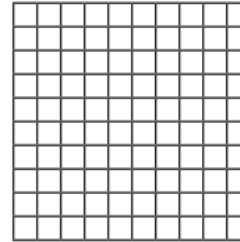
a) What fraction of the array of counters is red?

b) What fraction of the array of counters is yellow?

c) What percentage of the array of counters is red? ___ %

d) What percentage of the array of counters is yellow? ___ %

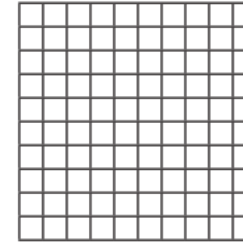e) What do you notice about the two percentages?
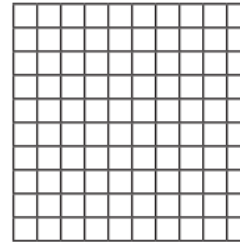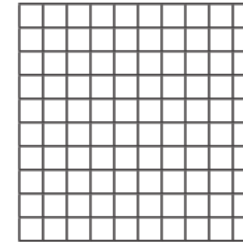
b) Write the fractions as percentages.

$\frac{40}{100} =$ ___ %

$\frac{65}{100} =$ ___ %

$\frac{1}{2} =$ ___ %

$\frac{7}{10} =$ ___ %

c) Compare your shaded grids with a partner's.

What is the same and what is different?

3 Fill in the missing numbers.

a) $\dfrac{9}{10} = \dfrac{\boxed{}}{100} = \boxed{}$ %

c) $\dfrac{9}{50} = \dfrac{\boxed{}}{100} = \boxed{}$ %

b) $\dfrac{9}{20} = \dfrac{\boxed{}}{100} = \boxed{}$ %

d) $\dfrac{9}{25} = \dfrac{\boxed{}}{100} = \boxed{}$ %

4

$\dfrac{1}{10}$ is 10%, so $\dfrac{1}{20}$ must be 20%.

Explain the mistake that Ron has made.

What is the correct answer?

$$\dfrac{1}{20} = \boxed{} \ \%$$

5 Convert the fractions to percentages.

a) $\dfrac{1}{4} = \boxed{}$

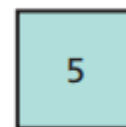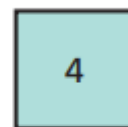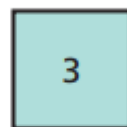$\dfrac{1}{2} = \boxed{}$

$\dfrac{3}{4} = \boxed{}$

b) $\dfrac{1}{5} = \boxed{}$

$\dfrac{2}{5} = \boxed{}$

$\dfrac{4}{5} = \boxed{}$

Problem Solving

7 **a)** Use each digit card once to make the statements correct.

| 1 | 2 | 3 | 4 | 5 |

$$\frac{\square}{\square} > \boxed{}\,0\%$$

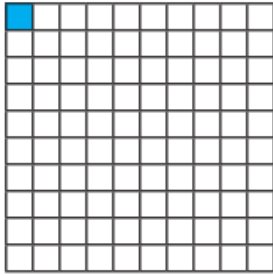$$75\% = \frac{\square}{4}$$

$$\frac{3}{\square} < 65\%$$

b) Are there any other solutions?
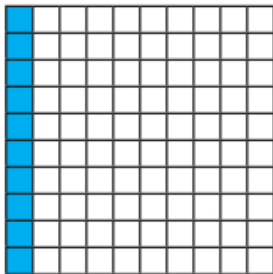
Wednesday 03.06.20

1 What fraction, decimal and percentage of each grid is shaded blue?
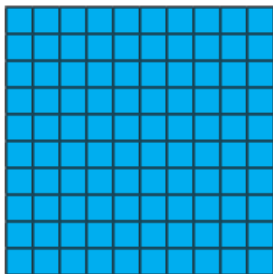
fraction = ☐

decimal = ☐

percentage = ☐

fraction = ☐

decimal = ☐

percentage = ☐

fraction = ☐

decimal = ☐

percentage = ☐

2 Match the equivalent fractions, decimals and percentages.

$\frac{15}{100}$	0.05	5%
$\frac{1}{20}$	0.5	15%
$\frac{1}{5}$	0.2	50%
$\frac{1}{2}$	0.15	20%

4 Complete the table.

Fraction	Decimal	Percentage
	0.21	
		12%
$\frac{2}{10}$		
	0.4	
	0.44	
		4%
$\frac{3}{4}$		
	0.99	

5 Amir was asked to complete the statement using <, > or =.

14% (>) 0.4

14 is greater than 4

What mistake has Amir made?

_____

_____

6 Match the decimal cards to the people.

My decimal is $\frac{4}{10}$ less than 100%.

My decimal cannot be simplified when it is written as a fraction.
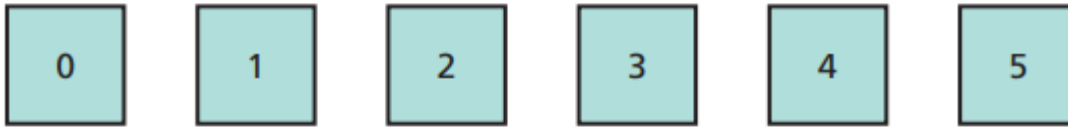
My decimal is 10% less than $\frac{3}{4}$

My decimal is greater than 60%.

0.65

0.57

0.61

0.6

Problem Solving

7 Use the digit cards to write a decimal greater than $\frac{1}{5}$ but less than 40%.

You may not use a card more than once in each number.

| 0 | 1 | 2 | 3 | 4 | 5 |

☐.☐☐

How many other answers can you find?

Thursday 04.06.20

1 Write <, > or = to complete the statements.

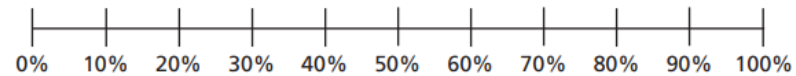a) 64% ◯ 0.46   d) 0.8 ◯ 80%

b) 0.96 ◯ $\frac{97}{100}$ e) 67% ◯ $\frac{7}{10}$

c) $\frac{3}{5}$ ◯ 35%   f) $\frac{7}{20}$ ◯ 0.3

3 Write the fractions, decimals and percentages in ascending order.
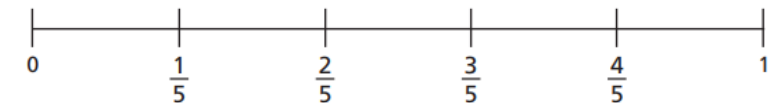
a) $\frac{7}{10}$ $\frac{13}{100}$ 21%   0.9

2 Draw arrows to estimate the positions of the fractions, decimals and percentages on the number line.

a) 9% $\frac{9}{10}$ 0.99   19%

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├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤
0%  10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
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b) 0.6   61% $\frac{37}{50}$ 0.66

b) $\frac{2}{5}$ 0.52   45%   0.2

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├─────┼─────┼─────┼─────┼─────┤
0     1     2     3     4     1
      5     5     5     5
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c) 47%   0.89 $\frac{63}{100}$ 12%

4 These fractions, decimals and percentages are in descending order.

99% $\dfrac{89}{100}$ 0.7   ☐   0.5   49%

Tick the fractions, decimals and percentages that could fill the gap.

☐ 0.78   ☐ 51%   ☐ $\dfrac{3}{5}$ ☐ 0.6   ☐ $\dfrac{4}{10}$

5 Tommy scored $\dfrac{40}{50}$ on a Maths test.

Aisha got 78% of the test correct.

Aisha thinks she has done better because 78 is greater than 40

Do you agree with Aisha? _____

Explain your answer.

_____

_____

Problem Solving

6 Huan, Nijah and Scott each started with a 1-litre bottle of juice.

Huan drank 0.55 litres.

Nijah drank 59% of her juice.

Scott has $\frac{4}{10}$ of his juice left.
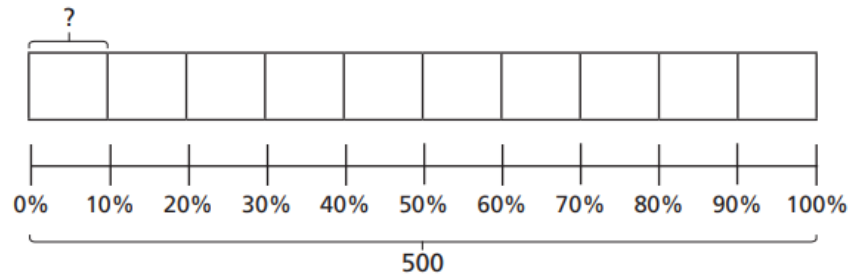
1 litre   1 litre   1 litre

Who drank the most? Show your working.

_____ drank the most.

Who drank the least? Show your working.

_____ drank the least.

1 **a)** Use the bar model to find 10% of 500

?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

500

10% of 500 = [ ]

b) Use your answer to part a) to help you complete the calculations.

20% of 500 = [ ]   70% of 500 = [ ]

90% of 500 = [ ]   60% of 500 = [ ]

30% of 500 = [ ]   100% of 500 = [ ]

3 Some children are asked to find 75% of 340

I will find 25% and multiply it by 3

a) Use Dexter's method to find 75% of 340

[ ]

I will find 10% and multiply it by 7, then find 5% and add them together.

b) Use Alex's method to find 75% of 340

[ ]

4 Talk to a partner about different methods for finding these percentages.

20%   90%   60%   15%   55%   40%

Use your preferred method to calculate the percentages.

a) 20% of 1,000 = ☐   d) 15% of 1,000 = ☐

20% of 550 = ☐   15% of 300 = ☐

20% of 40 = ☐   15% of 30 = ☐

b) 90% of 1,000 = ☐   e) 55% of 1,000 = ☐

90% of 4,230 = ☐   55% of 4,400 = ☐

90% of 90 = ☐   55% of 8 = ☐

c) 60% of 1,000 = ☐   f) 40% of 1,000 = ☐

60% of 400 = ☐   40% of 400 = ☐

60% of 98 = ☐   40% of 98 = ☐

5 Ron is calculating these percentages.

10% of 20   20% of 10

20% is double 10%, and 10 is half of 20, so I know these will both have the same answer.

How does Ron know this?

Problem Solving

6 **a)** Complete the calculations.

20% of 40 = ☐   25% of 60 = ☐

40% of 20 = ☐   60% of 25 = ☐

b) What do you notice about the answers?

_____

_____

c) Does this always happen? Investigate with other examples.

d) Talk about your findings with a partner.

Where can I complete further work?

Twinkl – Subscription service used by schools is offering a free premium service for teachers, parents and children to use whilst schools are closed. Enter the code **UKTWINKLHELPS** for access to worksheets, powerpoints and interactive games to support all areas of learning.

Classroom Secrets – Free Maths, Reading and Grammar home learning packs and interactive resources for all ages.

White Rose Maths – Free Maths home learning resources for all ages. Watch the videos and try the questions.

Primary Stars – Free Maths home learning packs for Year 1 and 2.

BBC Bitesize Primary – Free learning resources available for KS1 and KS2 across all subjects.

I See Maths – Free daily home maths lessons hosted by Gareth Metcalfe. Follow the link for videos, information and resources.

Top Marks – Free educational resources and games for English and Maths.

ICT Games – Free educational resources and games for English and Maths.