

Maths Planning and Ideas



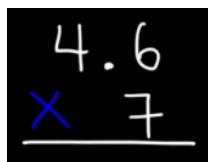
Week Commencing: 20.04.20

Year Group: Year 6

	Monday	Tuesday	Wednesday	Thursday	Friday
Area of Learning	Arithmetic LC: Can you multiply decimals accurately?	LC: Can you solve real life problems using money?	LC: Can you solve word problems involving money?	LC: Can you calculate missing values using algebra?	
Activity	<p style="color: red;">Starter: Complete the 10 mental maths questions for Monday (provided below)</p> <p>Main Activity</p> <p>Chn should recap previous work on using column method to solve multiplications:</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $\begin{array}{r} 13 \\ 325 \\ \times 6 \\ \hline 1950 \end{array}$ </div> <p>Try giving yourself a few examples to complete with a partner, starting with multiplying by a single digit (458×3) before trying to multiply by 2 digits (658×12).</p>	<p style="color: red;">Starter: Complete the 10 mental maths questions for Tuesday (provided below)</p> <p>Main Activity</p> <p>Chn should quickly recap the multiplication of decimals covered yesterday.</p> <p>Talk about the places that we find decimals in the real world, e.g. with prices and money.</p> <p>Allow your child time to recap their understanding of money, e.g. recognition of the coins, how many pennies fit into a pound etc.</p> <p>Independent Activity</p>	<p style="color: red;">Starter: Complete the 10 mental maths questions for Wednesday (provided below)</p> <p>Main Activity</p> <p>Recap previous work on money – choose 10 decimal calculations and race a parent to complete them in the fastest time!</p> <p>Read through some of the word problems provided below and discuss the ways in which you would solve them – will I need to multiply or divide? Will there be one step or two steps to find the answer? Complete a few</p>	<p style="color: red;">Starter: Complete the 10 mental maths questions for Thursday (provided below)</p> <p>Main Activity</p> <p>Chn to watch the videoa as an introduction to algebra https://www.youtube.com/watch?v=z0OIXIZKfo0 https://www.youtube.com/watch?v=YVJAdfE-L68</p> <p>Chn to read through the help sheet provided below to reinforce what they have watched and learnt this half term.</p> <p>Independent Activity</p>	<p style="color: red;">Starter: Complete the 10 mental maths questions for Friday (provided below)</p> <p>Main Activity</p> <p>Recap previous work on algebra</p> <p>Independent Activity</p> <p>To complete Thursday activities provided</p>

Now try to use the same method but start with a decimal number when multiplying – think of examples with up to 3dp, e.g. 1.654.

Don't forget to place the decimal point in your answer section before beginning each question!



A handwritten multiplication problem on a black background. The number 4.6 is written in white above a horizontal line. To the left of the line is a blue 'x' symbol. To the right of the line is a white '7'. The result of the multiplication is not shown.

Independent Activity

Create your own questions to complete and challenge a partner with.

Choose a catalogue, either online or a hard copy for one of your favourite shops – take an imaginary shopping trip and calculate what you spend on each item, e.g. if bars of chocolate cost £1.22 and you buy 4 of them, work out what 1.22×4 is.

Challenge yourself to work out your total at the end!

To extend your learning, set yourself a budget of £100 – workout what you can buy and how many of each item you can have without going over-budget. Try this out in different shops to see what you could buy.

together until chn are confident with methods used.

Independent Activity

Complete the questions provided below, including some of the trickier problem solving examples – these follow the usual format of Fluency/Reasoning/Problem Solving/Dive Deeper with which the chn are familiar.

Complete the questions provided below, including some of the trickier problem solving examples – these follow the usual format of Fluency/Reasoning/Problem Solving/Dive Deeper with which the chn are familiar.

There are a lot of questions provided so please don't rush to do them all today – save some for tomorrow!

Starter Activities

Monday	Tuesday	Wednesday	Thursday	Friday
1. 1256×9	11. 3324×7	21. 5512×5	31. 7006×8	41. 8160×6
2. 12.98×3	12. 36.89×4	22. 25.09×6	32. 60.73×5	42. 507.88×3
3. $45 + ? = 100$	13. $25 + ? = 100$	23. $58 + ? = 100$	33. $67 + ? = 100$	43. $81 + ? = 100$
4. $150 = ? - 20$	14. $780 = ? - 600$	24. $460 = ? - 370$	34. $780 = ? - 640$	44. $160 = ? - 120$
5. Find 35% of 650	15. Find 35% of 700	25. Find 35% of 567	35. Find 35% of 348	45. Find 35% of 871
6. Name a 5-sided shape	16. Name a 6-sided shape	26. Name a 7-sided shape	36. Name an 8-sided shape	46. Name 2 4-sided shapes
7. 3 days = ? hours	17. 4 days = ? hours	27. 5 days = ? hours	37. 6 days = ? hours	47. 1 week = ? hours
8. $1.2\text{m} = ? \text{cm}$	18. $1.8\text{m} = ? \text{cm}$	28. $3.7\text{m} = ? \text{cm}$	38. $58.9\text{m} = ? \text{cm}$	48. $0.51\text{m} = ? \text{cm}$
9. $0.56 + 0.36$	19. $0.67 + 0.11$	29. $0.23 + 0.44$	39. $0.77 + 0.05$	49. $0.07 + 0.90$
10. $7176 \div 12$	20. $8028 \div 12$	30. $4200 \div 12$	40. $3036 \div 12$	50. $50,184 \div 12$

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 20.04.20

No additional questions needed

Tuesday 21.04.20

No additional questions needed

Wednesday 22.04.20

1. John bought 3 brownies at a bake sale. If each brownie cost £0.25 and he paid with a twenty pound note, how much change does he get?

2. Jenny bought 4 cans of pop at the shop. If each can cost her £1.60 and she paid with a twenty pound note, how much change does she get back?

3. Harry bought 4 bunches of bananas at the greengrocers. Each bunch cost £0.79. How much change would he get if he paid with a twenty pound note?

4. Julia got given a gift card for her birthday with £20 of store credit. She bought a dress that cost £16.67 using the gift card. How much money does she have left on the gift card?

5. Paul bought a book from the book shop. If it cost £6.23, how much change would Paul get back if he paid with a twenty pound note?

6. Helen bought an ornament from a gift shop. It cost £19.67. How much change will Helen receive if she paid with a twenty pound note?

7. Annie bought 4 chocolate bars to give to her friends. Each one cost £1.43. How much change will she receive if she pays with a twenty pound note?



potatoes
£1.50 per kg



carrots
£1.80 per kg

Jack buys $1\frac{1}{2}$ kg of potatoes and $\frac{1}{2}$ kg of carrots.

How much **change** does he get from **£5**?

Show
your
method

£

Amina posts three large letters.

The postage costs the same for each letter.

She pays with a £ 20 note.

Her change is £14.96

What is the cost of posting **one** letter?

Show
your
method

A large grid for showing the method of calculation. The grid is 20 columns wide and 8 rows high. A small rectangular box containing the symbol '£' is positioned near the bottom right of the grid, spanning 4 columns and 2 rows.

Thursday 23.04.20

In algebra, a value is replaced by a representative letter, e.g. n . This means that wherever the term 'n' is seen, it represents the value not shown. In some questions, 'n' is not known and the children must use their understanding of calculations to work this out.




$$\begin{array}{c} \color{green}{\square} \\ n \end{array} \rightarrow \times 3 \rightarrow \begin{array}{c} \color{green}{\square} \quad \color{green}{\square} \quad \color{green}{\square} \\ n \quad n \quad n \end{array} \quad (3 \times n) = 3n$$

$$\begin{array}{c} \color{magenta}{\square} \\ n \end{array} \rightarrow \times 3 \rightarrow + 2 \rightarrow \begin{array}{c} \color{magenta}{\square} \quad \color{magenta}{\square} \quad \color{magenta}{\square} \quad \bullet \bullet \\ n \quad n \quad n \quad 2 \end{array} \\ = 3n + 2$$


$$\begin{array}{c} \color{orange}{\square} \\ n = 5 \end{array} \quad \begin{array}{c} \color{orange}{\square} \quad \color{orange}{\square} \quad \bullet \bullet \\ n \quad n \quad 4 \end{array} = 2n + 4 \\ = 2 \times n \\ = 2 \times 5 \\ = 10 \\ 2n + 4 = 10 + 4 \\ 2n + 4 = 14$$

$$\begin{array}{c} \color{yellow}{\square} \\ n = 20 \end{array} \quad \begin{array}{c} \color{yellow}{\square} \\ 4 \end{array} = \frac{n}{4} = n \div 4 \\ = 20 \div 4 \\ = 5$$

Complete the following table:

Words	Picture	Algebra
Two times n, add 5		$2n + 5$
		
		
		$3n + 2$
		$7n + n$
Four lots of n added to 2 lots of n		
		$2n + 3n$

Complete the following table:

Words	Picture	Algebra
I think of a number		y
Multiply by 2		
Add 4		
My answer is 20		

Work out the value of each shape:



↑
16



↑
18



For each equation, use the values shown to calculate your final answer:

 = 3  = 4  = 5

 +  +  +  =

 +  +  +  =

 ×  +  =

 ×  -  ×  =

Now have a go at creating your own picture sentences to solve:

If $n=6$, then calculate:

1. $2n + 2$

5. $5n - 2$

2. $2n + 5$

6. $7n - 10$

3. $4n + 8$

7. $2n + 3n$

4. $4n - 4$

8. $9n - 6n$

If $n=12$, then calculate:

1. $2n + 2n$

5. $5n - 2n$

2. $7n + 5$

6. $7n - n$

3. $4n + 8n$

7. $2n + (n+1)$

4. $6n - 4$

8. $9n - (n-2)$

For each equation, work out the value of n:

1. $6n + 8 = 44$

2. $2n - 7 = 17$

3. $4n - 8 = 72$

4. $3n + 11 = 38$

1. $14n + 8 = 36$

2. $12n - 7 = 17$

3. $7n + 8 = 29$

4. $20n + 11 = 71$

Now have a go at creating your own equations to solve:

For each question, write an equation to match the scenario:

For my cake, I need four times as much flour as I do sugar.

There are five times the number of boys in the class compared to the number of girls.

My journey to work this morning was seven times longer than usual.

The children made 5 times fewer mistake on test A than in test B.

Algebra Investigation Extension

n	Answer
1	4
2	7
3	10
4	13
5	16

Did I use:

$$2n + 3$$

$$3n + 1$$

$$5n + 5$$

Can you calculate the algebraic formula that I have applied to each value of n to get the answers provided?

n	Answer
1	2
2	6
3	10
4	14
5	18

Can you work it out without any clues this time?

Can you calculate the algebraic formula that I have applied to each value of n to get the answers provided?

Friday 24.04.20

See remaining questions from Thursday and extension activity

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.