



Maths Planning and Ideas



Week Commencing: 27.04.20

Year Group: Year 6

	Monday	Tuesday	Wednesday	Thursday	Friday
Area of Learning	<p>Arithmetic</p> <p>LC: Can you find simple percentages?</p>	<p>LC: Can you use percentages to calculate decreased amounts?</p>	<p>LC: Can you use percentages to calculate increased amounts?</p>	<p>LC: Can you use percentages to calculate missing values?</p>	<p>LC: Can you the percentage of an amount shown?</p>
Activity	<p>Starter: Complete the 10 mental maths questions for Monday (provided below)</p> <p>Main Activity Chn have previously completed work on calculating percentages and should be confident with this activity.</p> <p>We have already covered some of the key facts that the chn will find useful:</p> <ul style="list-style-type: none"> • 50% = a half • 25% = a quarter • 75% = three quarters • 20% = a fifth • 10% = a tenth 	<p>Starter: Complete the 10 mental maths questions for Tuesday (provided below)</p> <p>Main Activity Having recapped calculating percentages yesterday, now we can look at how these are used in the real world.</p> <p>Shops often display offers and discounts that read 15% off or a similar amount – this means that a portion of the original price has been removed to make the item cheaper.</p> 	<p>Starter: Complete the 10 mental maths questions for Wednesday (provided below)</p> <p>Main Activity Similarly to yesterday, we are using percentages to model real-world examples.</p> <p>If you want more of a given amount, you can increase this by a given percentage, e.g. 30% more – you often see this advertised on cartons and containers in the supermarket.</p> 	<p>Starter: Complete the 10 mental maths questions for Thursday (provided below)</p> <p>Main Activity Some problem solving now to go with all of your work so far!</p> <p>You have been able to use your understanding of finding 10% to help you find other percentages too – now we need to use this knowledge in reverse to see if we can calculate original values.</p> <p>Let's say that 20% of an amount is 12 – how could I work out what the original</p>	<p>Starter: Complete the 10 mental maths questions for Friday (provided below)</p> <p>Main Activity Our final lesson is about calculating the percentage shown, thinking about how much of a whole you have.</p> <p>For example, if you score 10 out of 20 on a test, the fraction of correct answers is $\frac{1}{2}$, which means the percentage must be 50%.</p> <p>If I only scored 5 out of 20, I know that I can</p>

<p>Chn should be able to use these facts to divide their given number by the required amount to find these simple percentages. We have also looked at how we can use 10% to find other %, such as:</p> <ul style="list-style-type: none"> • $30\% = 10\% \times 3$ • $5\% = 10\% \div 2$ <p>Give them time to recap this knowledge and to address any concerns that they have</p> <p>Top Tip: Remember, there is an easy way to divide by 10...move the digits one place to the right.</p> <p>Independent Activity</p> <p>From the two grids provided below, choose a % and a total to create your own questions, e.g. find 22% of 560.</p> <p>You could cut the grids out to make two piles of cards to choose from, or could simply start at the top left corner on one box and the bottom right on the other.</p> <p>Complete as many different calculations as you can.</p>	<p>Imagine a 10% discount on a £3.00 item:</p> <p>$10\% = 30p$ New price = £3.00 – 30p = £2.70</p> <p>Using this model, have a go at calculating some simple percentage reductions – you could use the numbers and percentages from the previous lesson to guide you.</p> <p>Independent Activity</p> <p>A little bit of role play...</p> <p>Design and create yourself a shop! This can make and sell anything that you want – it could be a sweet shop, a cafe or even a pet shop. On a large piece of paper, draw and label all of your products, including their prices.</p> <p>Once this is done, decide on a % that you can discount these items by, e.g. 50% off or 25% off.</p> <p>For each item, calculate the new sale price and add it to your plan in a different colour – you could even make some ‘SALE’ labels to add.</p>	<p>Imagine a bottle that contains 250ml of oil – a container with 10% more would have:</p> <p>$10\% = 25ml$ $250+25 = 275ml$</p> <p>Independent Activity</p> <p>Linked to your shop design from yesterday, now think about the size of your products – this might be the capacity of the bottle or box that they come in or the number of individual items that come in a pack, e.g. a bag that contains 10% more sugar than it used to.</p> <p>Using your original design, add labels to specify the capacity of each item in g, kg, ml, L, etc.</p> <p>Design a new container that holds a percentage more than the original and use this to calculate the capacity of the new item.</p> <p>We would love to see some of your finished shop designs – send us a photo if you can! 😊</p>	<p>100% would be? I could use my knowledge of $20 \times 5 = 100$ so I multiply $12 \times 5 = 60$.</p> <p>If I know that 25% is 9, then 100% would be $9 \times 4 = 36$ because $25 \times 4 = 100$.</p> <p>What about if 7% is 14, what would 100% be? First I need to find 1% so $14 \div 7 = 2$. If 1%=2, then $100\% = 200$.</p> <p>This challenge is all about what you already know and how you use it – think about whether you can work out wither 10% or 1% to help you.</p> <p>Independent Activity</p> <p>Have a go at the questions below.</p>	<p>simplify $5/20$ to $1/4$ - I then know that this is the same as 25%.</p> <p>For each example, think about the fraction that is being shown – you can then simplify this until you reach a fraction that you are confident at recognising as a percentage (look back to the examples I gave on Monday’s plan to help you if you are unsure).</p> <p>Independent Activity</p> <p>Have a go at the questions below.</p>
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Starter Activities

Monday	Tuesday	Wednesday	Thursday	Friday
1. 258×11	11. 612×12	21. 2407×14	31. 3030×13	41. 5549×18
2. 31.94×8	12. 52.52×7	22. 11.28×6	32. 78.54×9	42. 24.02×6
3. $650 + ? = 1000$	13. $425 + ? = 1000$	23. $390 + ? = 1000$	33. $510 + ? = 1000$	43. $775 + ? = 1000$
4. $1700 = ? - 200$	14. $1700 = ? - 840$	24. $1700 = ? - 300$	34. $1700 = ? - 930$	44. $1700 = ? - 160$
5. Find 15% of 520	15. Find 15% of 340	25. Find 15% of 687	35. Find 15% of 955	45. Find 15% of 717
6. Name a 6-sided shape	16. Name a 7-sided shape	26. Name a 8-sided shape	36. Name a 4-sided shape	46. Name a 10-sided shape
7. 3 hours = ? minutes	17. 5 hours = ? minutes	27. 7 hours = ? minutes	37. 12 hours = ? minutes	47. 24 hours = ? minutes
8. $1846\text{m} = ? \text{ km}$	18. $1427\text{m} = ? \text{ km}$	28. $2695\text{m} = ? \text{ km}$	38. $6969\text{m} = ? \text{ km}$	48. $22,514\text{m} = ? \text{ km}$
9. $0.56 + ? = 1.00$	19. $0.32 + ? = 1.00$	29. $0.44 + ? = 1.00$	39. $0.81 + ? = 1.00$	49. $0.07 + ? = 1.00$
10. $3776 \div 16$	20. $7232 \div 16$	30. $15,792 \div 16$	40. $8736 \div 16$	50. $13,584 \div 16$

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 27.04.20

Choose a total

Choose a percentage

72	4287	15,239	157	89	554
569	636	541	2598	125	509
265	942	673	6731	689	690
1567	102	98,987	8457	354	481
6985	2008	456	1193	197	707
6951	7403	283	22,230	5662	35

50%	20%	55%	17%	34%	13%
25%	45%	95%	32%	67%	66%
10%	75%	65%	42%	82%	99%
90%	60%	15%	98%	11%	27%
40%	80%	5%	78%	41%	19%
35%	95%	30%	46%	56%	23%

Tuesday 28.04.20

No resources needed

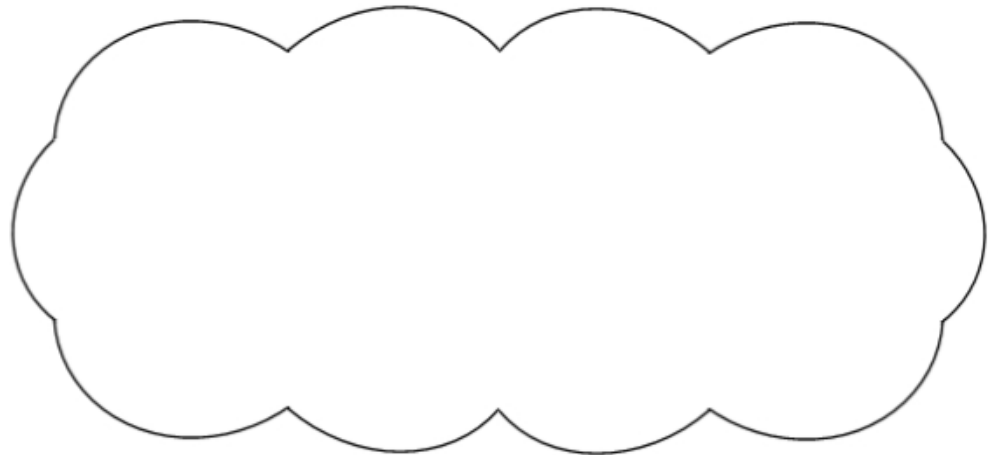
Wednesday 29.04.20

No resources needed

Thursday 30.04.20

1. If 10% of an amount is 15, work out 100%.
2. If 10% of an amount is 27, work out 100%.
3. If 25% of an amount is 44, work out 100%.
4. If 20% of an amount is 35, work out 100%.
5. If 5% of an amount is 31, work out 50%.
6. If 5% of an amount is 56, work out 50%.
7. If 7% of an amount is 21, work out 100%.
8. If 9% of an amount is 36, work out 100%.
9. If 8% of an amount is 64, work out 22%.
10. If 13% of an amount is 39, work out 72%.

If you know **40%** of a number, explain how you could work out the original number.

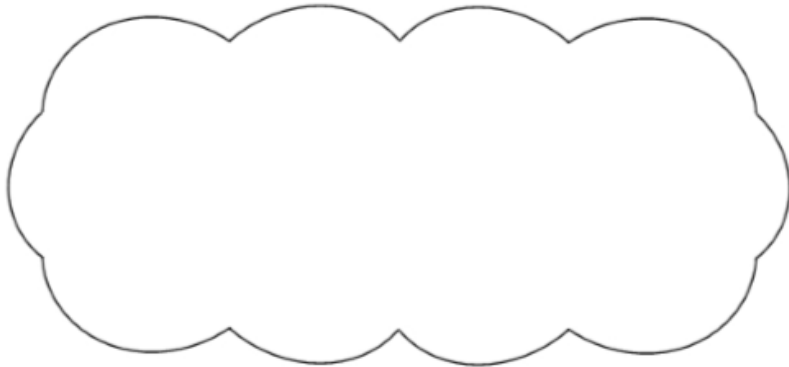


Liam did a survey of 55 people to see how many were left-handed.

Liam says,

'The results show that exactly 10% of the people in the survey are left-handed.'

Explain why Liam cannot be correct.



20% of Megan's number is 64

What is 50% of Megan's number?

Show your method

Friday 01.05.20

Hassan scores 40 out of 80 in a test.

Kate scores 40% in the same test.

Who has the higher score?

Circle **Hassan** or **Kate**.

Hassan / Kate

Explain how you know.

Amina asked 60 children to choose their favourite flavour of jelly.

These were her results.

Flavour	Number of children
Raspberry	12
Lemon	8
Orange	15
Blackcurrant	25
Total	60

What **percentage** of the 60 children chose orange?

A cat sleeps for **12 hours** each day.

50% of its life is spent asleep.

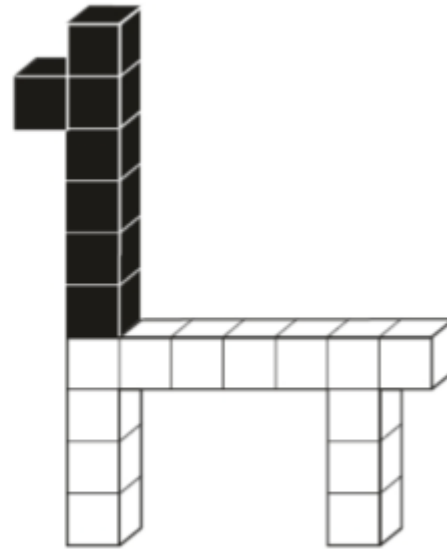
Write the missing percentage.

A koala sleeps for **18 hours** each day.

%

of its life is spent asleep.

This model is made with 20 cubes.



What **percentage** of the cubes in the model is black?

In a survey of children's favourite fruit juices, these were the results.

Juice	Apple	Orange	Grape	Mango
Percentage of children	25%	14%	30%	31%

(a) **20 more** children chose grape than chose apple.

How many children took part in the survey?

Show your method

children

2 marks

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.