

# Year 3 - Maths - Week 4



	Day 1 Activity	Day 2 Activity	Day 3 Activity	Day 4 Activity	Day 5 Activity
<b>Mental Maths (to aid fluency)</b>	<b>Times table</b> <b>Rockstars:</b> Challenge a friend or Mr Spalding to a Rock Slam. Practise your 4, 6 and 8 times tables.	<a href="#">Countdown Game</a> 100 10 3 2 1 4 Only using digits from the six above, make the number <b>539</b> ... or get as close as you can. <b>You can also follow the link and play online.</b>	<b>Video of the week:</b> Learn your 4 times table. You can use <a href="#">this</a> song to support your learning (and break dancing!)	<b>Number bonds:</b> 5-minute test. See below.	<b>Mathletics:</b> Log in and complete some activities. You can also see tasks set by Mr Spalding.
<b>Problem of the day</b>	<b>Five Coins.</b> Ben has five coins in his pocket. How much money might he have?  What's the smallest total value and the largest total value? Is there an amount in between these values that he <b>can't</b> have with 5 coins?	<b>Code Crackers</b> See below for details.	<b>Multiplication</b> Use the formal method (see below for layout) to complete the following calculations: 1. $23 \times 6 =$ 2. $36 \times 3 =$ 3. $75 \times 4 =$ 4. $48 \times 5 =$	<b>Problem of the week:</b> "Puzzles and problems for Years 3 and 4" Problem number 32, "Card Tricks." <b>Last week's answer:</b> There are 10 possibilities: 1, 3, 21      3, 5, 17 1, 5, 19      3, 7, 15 1, 7, 17      3, 9, 13 1, 9, 15      5, 7, 13 1, 11, 13     5, 9, 11	<b>Cubes:</b> Investigation - see below or use this online version. <a href="https://nrich.maths.org/42">https://nrich.maths.org/42</a>  Solutions to last week's question are <a href="#">here</a> .
<b>Tips, clues or methods to help</b>	Go through the calculations methodically. Check your answer by using the inverse calculation.	Remember that the answer to the maths question is the <b>value</b> assigned to a letter in the code.	Set out your multiplications neatly - remember to use columns	Go through the calculations methodically. Check your answer by using the inverse calculation.	Send Mr Spalding a message on the question page.
<b>Main activity of the day:</b> <a href="https://whiterosemaths.com/homelearning/year-3/">https://whiterosemaths.com/homelearning/year-3/</a> Summer Term – Week 4 (w/c 11 <sup>th</sup> May)	White Rose Maths An online video is available online to support each lesson. See below for each worksheet. Week 4 Lesson 1. The 4 times-table OR <b>pages 114-119 in Maths No Problem workbook</b>	White Rose Maths Week 4 Lesson 2 Multiplying 2-digit numbers by 1-digit numbers OR <b>pages 120-123 in Maths No Problem workbook</b>	White Rose Maths Week 4 Lesson 3 Dividing 2-digit numbers by 1-digit numbers OR <b>pages 124-129 in Maths No Problem workbook</b>	White Rose Maths Week 4 Lesson Scaling OR <b>pages 130-134 in Maths No Problem workbook</b>	Friday Maths Challenge. <a href="https://whiterosemaths.com/homelearning/year-3/">https://whiterosemaths.com/homelearning/year-3/</a>

**See below for:** Code crackers, formal multiplication layout example, puzzles and problems for Years 3 and 4 and daily White Rose Maths work.

## The 4 times-table

1 Complete the multiplication.



$$\square \times \square = \square$$



$$\square \times \square = \square$$

2 Complete the number sentences.

a)  $6 \times 4 = \square$

g)  $24 \div 4 = \square$

b)  $4 \times 3 = \square$

h)  $8 \div 4 = \square$

c)  $\square = 7 \times 4$

i)  $0 \div 4 = \square$

d)  $4 \times \square = 48$

j)  $\square \div 11 = 4$

e)  $0 \times 4 = \square$

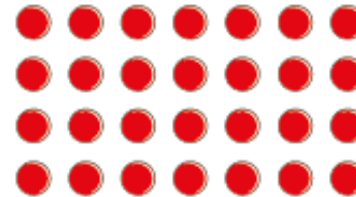
k)  $\square \div 4 = 5$

f)  $4 \times 9 = \square$

l)  $1 \times 4 = \square$

3 What multiplication and division statements does the array represent?

Complete the statements.



$$\square \times \square = \square$$

$$\square \times \square = \square$$

$$\square \div \square = \square$$

$$\square \div \square = \square$$

4 Complete the number sentences.

a)  $2 \times 4 = \square$

c)  $3 \times 4 = \square$

$4 \times 4 = \square$

$3 \times 8 = \square$

$8 \times 4 = \square$

$3 \times 12 = \square$

b)  $8 = 4 \times \square$

$16 = 4 \times \square$

$32 = 4 \times \square$

What patterns do you notice?



5 Write  $<$ ,  $>$  or  $=$  to compare the statements.

a)  $48 \div 12$   4                      d)  $4 \div 4$    $4 \times 4$

b) 36   $40 \div 4$                       e)  $1 \times 4$    $4 \times 1$

c)  $16 \div 4$    $4 \times 4$                       f)  $4 \times 2$    $32 \div 4$

6 A paper clip is 4 cm long.



How long are 6 of these paper clips?

7 Dexter buys 10 mugs and 4 key rings.  
How much money does he spend in total?




8 The pictogram shows the animals a group of children have as pets.

Complete the pictogram.

Animal	Pictogram	Number of animals
cat		
dog		28
bird		
mouse		

= 4 animals

9



Teddy

Some of the numbers in the 4 times-table are even, but not all of them.



Eva

All numbers in the 4 times-table are even.

Who is correct? \_\_\_\_\_

How do you know? Talk about it with a partner.



# Multiply 2-digits by 1-digit (2)

- 1 There are 23 marbles in a jar.  
There are 5 jars.



Tens	Ones

How many marbles are there in total?

$5 \times 3 \text{ ones} = \square$

$5 \times 2 \text{ tens} = \square$

$\square + \square = \square$

$5 \times 23 = \square$

There are  $\square$  marbles in total.

- 2 Work out  $4 \times 15$

Tens	Ones

$4 \times 5 = \square$

$4 \times 10 = \square$

$4 \times 15 = \square$

- 3 Complete the multiplications.

a)  $4 \times 24 = \square$

b)  $3 \times 17 = \square$

c)  $3 \times 25 = \square$

d)  $34 \times 4 = \square$

- 4 Complete the column multiplications.

Tens	Ones

	T	O	
	2	4	
x		3	
	—		
	—		



Tens	Ones
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1

		T	O	
		3	5	
x			4	
		-----		
		-----		

5 Work out the multiplications.

a)  $25 \times 5$

		T	O	
		2	5	
x			5	
		-----		
		-----		

c)  $5 \times 26$


b)  $35 \times 6$

		T	O	
		3	5	
x			6	
		-----		
		-----		

d)  $4 \times 36$




6 Tommy works out  $37 \times 2$

		T	O	
		3	7	
x			2	
		6	1	4


What mistake has Tommy made? Work out the correct answer.



7 Find the missing numbers.

		2	2	
x				
		8	8	

			1	
x				
		1	2	4

8 Here are some digit cards.

1	2	3	4	5	8
---	---	---	---	---	---

a) Use the digit cards to create a multiplication and work out the answer.

$$\square \square \times \square = \square$$

b) Work with a partner to find calculations that have:

- an odd product
- an even product
- an exchange in the ones column
- an exchange in the ones and tens columns.



## Divide 2-digits by 1-digit (2)



1 Rosie has 56 pencils.

a) Draw base 10 to represent the pencils.

Rosie shares the 56 pencils equally between 4 pots.

b) Draw base 10 on the place value grid to share the pencils.

Tens	Ones

c) How many pencils are in each pot?

d) Did you have to make an exchange?



2 Eva has this money.



She wants to share the money equally between 3 people.

a) Use the place value chart to show how Eva can share the money.

Tens	Ones

b) How much money does each person get?

3 Divide 72 by 3



Tens	Ones

Use the place value counters to help you.

$72 \div 3 =$



4 Use base 10 or counters to work out the divisions.

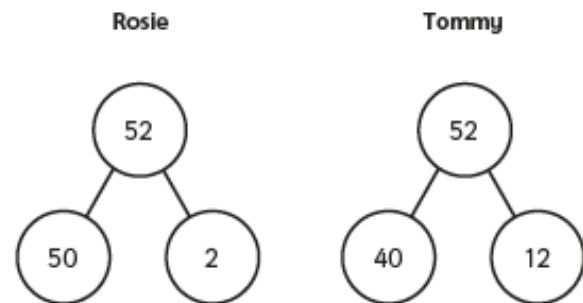
a)  $45 \div 3 = \square$

b)  $57 \div 3 = \square$

c)  $92 \div 4 = \square$

5 Rosie and Tommy are working out  $52 \div 4$

They both use a part-whole model.



a) Whose part-whole model will help them with the division?

\_\_\_\_\_

How do you know?

\_\_\_\_\_

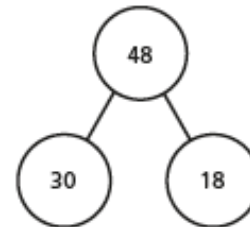
\_\_\_\_\_

b) Use a part-whole model to work out  $52 \div 4$



6 Use the part-whole models to complete the divisions.

a)  $48 \div 3 = \square$

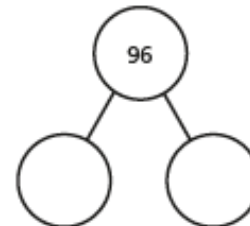


$30 \div 3 = \square$

$18 \div 3 = \square$

$48 \div 3 = \square$

b)  $96 \div 4 = \square$



c)  $65 \div 5 = \square$

d)  $75 \div 3 = \square$

7 Here are 3 divisions.

$96 \div 8$

$96 \div 4$

$96 \div 2$

a) What is the same about the questions? What is different?



b) Complete the divisions.

$96 \div 8 = \square$

$96 \div 4 = \square$

$96 \div 2 = \square$

c) What do you notice? Talk about it with a partner.



# Scaling



1 Aisha has some fruit.



Complete the sentences to describe the fruit.

There are  apples.

There are  strawberries.

There are  times as many strawberries as apples.

2 Huan is comparing 2 pieces of ribbon.



Complete the sentences to describe the ribbon.

The spotty ribbon measures

The plain ribbon measures

The plain ribbon is  times as long as the spotty ribbon.

3 Match the bar models to the statements.

Write the missing statement.



There are 4 times as many boys as girls.



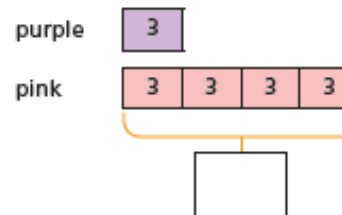
There are 3 times as many boys as girls.



4 There are 3 purple balloons.

There are 4 times as many pink balloons.

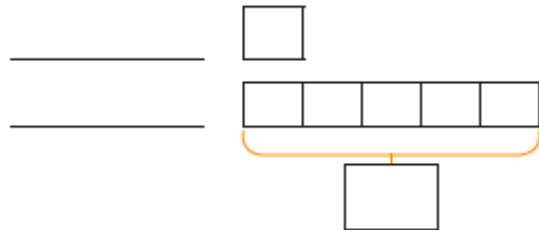
Complete the bar model to show how many pink balloons there are.





- 5 The red rope is 8 m long.  
The blue rope is 5 times as long.

a) Label and complete the bar model.



- b) How long is the blue rope?  
The blue rope is  m long.

- 6 Ron has 5 bananas.  
Esther has 6 times as many bananas as Ron.  
Draw a bar model to work out how many bananas Esther has got.

Esther has got  bananas.



- 7 Complete the sentences.

45 is  times greater than 5

$\times$  5 = 45

5 is  times smaller than 45

45  $\div$  5 =

- 8 The children are weighing out flour.



Use the clues to work out which child used which scales.

- Eva has twice as much as Alex.
- Dexter has 9 times as much as Alex.
- Annie has 3 times as much as Eva.
- Tommy has twice as much as Eva and 4 times as much as Alex.

	Alex	Eva	Dexter	Annie	Tommy
Scales					



## Day 2: Code Crackers:

The Big Garden Birdwatch is an activity organised each year by the RSPB. This encourages people to watch and count the birds that land in their garden or local park for an hour. By sending in the total count, the RSPB has been able to gather and compare useful data about the bird population. Through this, they have noted that since 1979 there has been a decline in the number of song thrushes.

**Solve each question below. Then use the key to find the answer to the joke. Letters can be used more than once.**

1.  $£4 = \_\_p$

2.  $£20 - £5 = £\_\_$

3. Lunch costs £4.25. David pays with a £10 note. What is his change in £?

4.  $6,921p = £\_\_$

5.  $£7.21 = \_\_p$

### Did you know?

Red kites were almost extinct in the UK by the early 1900s. In 1989, a re-introduction programme was set up and their numbers have been steadily increasing ever since.

6.  $£1 = \_\_p$

7.  $£5 + £0.50 + 25p = £\_\_$

8.  $£3 + £2 + 52p = \_\_p$

9.  $284p = £\_\_$

10. Kelly buys sweets costing £1.80. She pays with a £20 note. What is her change in £?

11.  $£81.20 = \_\_p$

A	B	C	D	E	F	G	H	I	J	K	L	M
2.84	69.21	19.20	20.50	5.75	5.85	10	15	10.50	552	28.40	721	352
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
5.52	6,921	6.85	252	284	8,120	400	100	6.75	25	4,000	18.20	10.10

What type of birds are always sad?

1   2   3            4   5   6   7            8   9   10   11

### Day 3: Multiplication: Formal layout

$$\begin{array}{r} \text{T U} \\ 37 \\ \times \quad 4 \\ \hline 28 \\ 120 \\ \hline 148 \end{array}$$

### Day 4: Number bonds

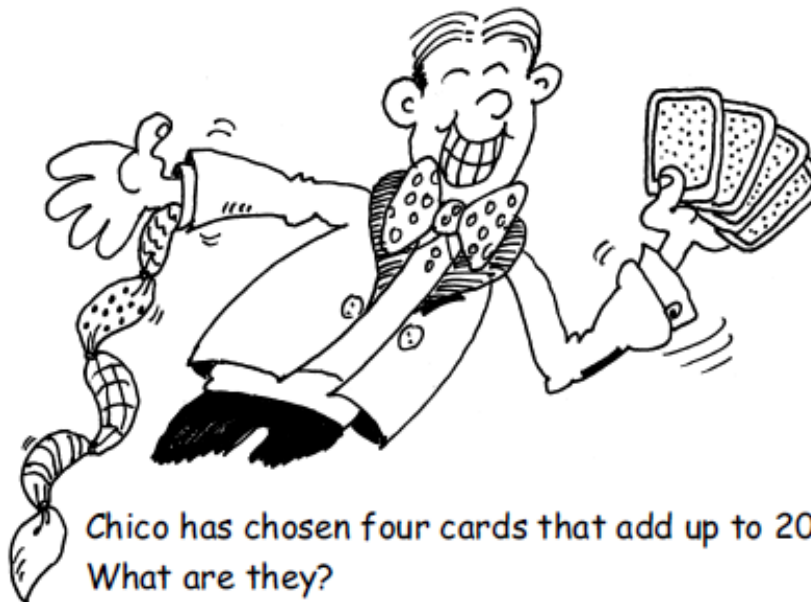
Set a five minute timer and fill in the gaps.

- |                   |                    |
|-------------------|--------------------|
| 1) 4 + ___ = 20   | 11) 44 + ___ = 100 |
| 2) 2 + ___ = 20   | 12) 70 + ___ = 100 |
| 3) 9 + ___ = 20   | 13) 87 + ___ = 100 |
| 4) 1 + ___ = 20   | 14) 40 + ___ = 100 |
| 5) 5 + ___ = 20   | 15) 71 + ___ = 100 |
| 6) ___ + 17 = 20  | 16) 80 + ___ = 100 |
| 7) ___ + 14 = 20  | 17) 35 + ___ = 100 |
| 8) 12 + ___ = 20  | 18) 25 + ___ = 100 |
| 9) 15 + ___ = 20  | 19) ___ + 10 = 100 |
| 10) 11 + ___ = 20 | 20) ___ + 72 = 100 |

### Day 4: problem of the week

#### Card tricks

Chico's cards are all different.  
There is a number from 1 to 8 on each card.



Chico has chosen four cards that add up to 20.  
What are they?  
There are seven different possibilities.  
Try to find them all.

What if Chico has three cards that add up to 16?

32

#### Teaching objectives

Solve mathematical problems or puzzles.  
Know addition and subtraction facts up to 20.  
Add three or four small numbers mentally.

## Day 5: Cubes

# Cubes

Age 7 to 11 ★

In this activity we will be using cubes to make different arrangements. First, find three cubes that are all the same size and all have flat faces.



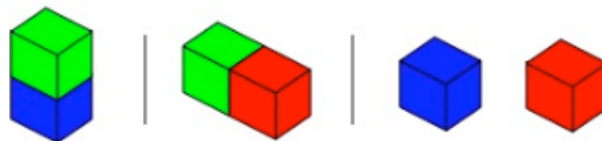
Start by looking at just one of these cubes.



Put it onto the table or another flat surface. How many square faces can you see? You are allowed to walk around the cube and bend down to see it, but you aren't allowed to pick the cube up.

Next, take two of the cubes. Put them down on the table, either separately or together. What different arrangements are there?

I've made these three arrangements with my cubes:

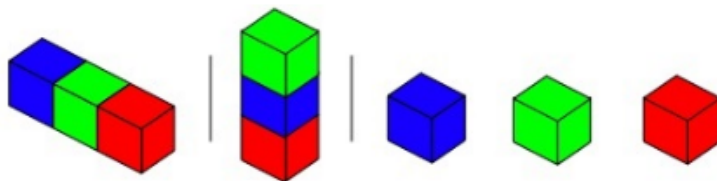


How many square faces can I see in each case? Have a go at using your imagination to visualise how many I can see, and try making these arrangements yourself to check your answers.

These three arrangements each showed me a different number of faces. Are there any other ways in which I could have arranged the cubes? Would these show me a different number of faces?

Think about how we can tell whether or not two arrangements are the same. For example, I could turn the second arrangement so that the red cube is pointing to the left instead - would this count as a different arrangement? Why/why not?

Finally, take all three of the cubes. Arrange these in some different ways. It might help to write or draw each arrangement to keep track of the ways that you have already tried. Here are some of my arrangements:



How many square faces can I see in each of these three cases?

Now it's your turn! Use your three cubes every time, and see how many different ways there are to arrange them. How many faces can you see each time? Try to find all the possible answers.