

Year 3 - Maths - Week 3



	Day 1 Activity	Day 2 Activity	Day 3 Activity	Day 4 Activity	Day 5 Activity
Mental Maths (to aid fluency)	Times table Rockstars: Challenge a friend or Mr Spalding to a Rock Slam. Practise your 3, 4 and 6 timestables.	Countdown Game 100 10 5 6 3 4 Only using digits from the six above, make the number 342 ... or get as close as you can. You can also follow the link and play online.	Video of the week: Learn the 6 times table This great song can support your learning!	Number bonds: 5-minute test. See below.	Mathletics: Log in and complete some activities. You can also see tasks set by Mr Spalding.
Problem of the day	Consecutive Numbers Investigation - see below.	Code Crackers See below for details.	Multiplication Use the formal method (see below for layout) to complete the following calculations: 1. $32 \times 6 =$ 2. $71 \times 3 =$ 3. $85 \times 4 =$ 4. $27 \times 5 =$	Problem of the week: "Puzzles and problems for Years 3 and 4" Problem number 31, "Three monkeys." <u>Last week's answer:</u> Susie has 19 eggs	4 Dom: See below or use this online version. https://nrich.maths.org/179 Solutions to last week's question are here .
Tips, clues or methods to help	Go through the calculations methodically. Check your answer by using the inverse calculation.	Remember that the answer to the maths question is the value 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.
Main activity of the day: https://whiterosemaths.com/homelearning/year-3/	White Rose Summer Term - Week 3 Lesson 1. Convert pounds to pence.	White Rose Summer Term - Week 3 Lesson 2, Adding money (without a decimal point).	White Rose Summer Term - Week 3 Lesson 3. Subtracting money (without a decimal point).	White Rose Summer Term - Week 3 Lesson 4. Multiply and divide by 3.	Friday Maths Challenge. https://whiterosemaths.com/homelearning/year-3/

See below for: Consecutive numbers, code crackers, formal multiplication layout example, puzzles and problems for Years 3 and 4.

Convert pounds and pence



1 a) Circle £1



b) Circle £1



c) Circle £1



d) Circle £10



2 How many 1p coins do you need to make £1?

3 Write the price of each item in pence.



p



p



p

4 Write each amount in pounds and pence.

a) 274p = £ and p b) 592p = £ and p

374p = £ and p 591p = £ and p

474p = £ and p 590p = £ and p

Day 1 continued

c) $111\text{p} = \text{£} \square \text{ and } \square \text{ p}$

d) $405\text{p} = \text{£} \square \text{ and } \square \text{ p}$

- 5 Annie has some coins.



a) How much money does Annie have? $\text{£} \square \text{ and } \square \text{ p}$

b) What is 10p more? $\text{£} \square \text{ and } \square \text{ p}$

What is 10p less? $\text{£} \square \text{ and } \square \text{ p}$

c) What is 100p more? $\text{£} \square \text{ and } \square \text{ p}$

What is 100p less? $\text{£} \square \text{ and } \square \text{ p}$

- 6 What amount is represented in each box?



$\text{£} \square \text{ and } \square \text{ p}$



$\text{£} \square \text{ and } \square \text{ p}$



$\text{£} \square \text{ and } \square \text{ p}$



- 7 Eva empties out her money box.



How much money was in her money box? $\text{£} \square \text{ and } \square \text{ p}$

How did you count the coins? Compare with a partner.

- 8 a) What is the fewest number of coins you can use to represent 315p?

- b) Use 6 coins to make an amount that is more than £3, but less than £4. Draw your answer.

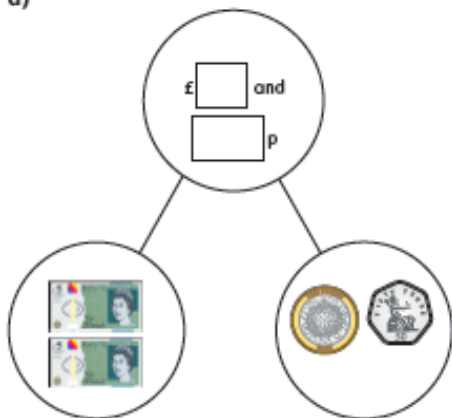
Compare answers with a partner.



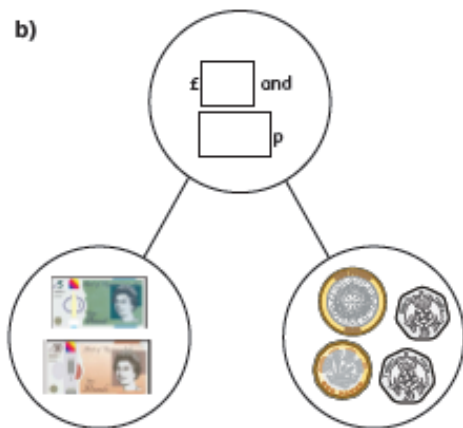
Add money

1 Complete the part-whole models.

a)



b)



2 Dora buys two birthday cards.



Complete the sentences to show how much money Dora spends.

$$£ \square + £ \square = £ \square$$

$$\square \text{ p} + \square \text{ p} = \square \text{ p}$$

Dora spends £ and p.

3 Complete the number sentences.

a) £3 and 12p + £5 and 12p = £ and p

b) £3 and 30p + £5 and 30p = £ and p

c) £3 and 50p + £5 and 50p = £ and p

d) £4 and 50p + £5 and 50p = £ and p

What do you notice?




Day 2 continued

- 4 Brett has £6 and 55p.
Aisha has £2 and 55p.
How much money do they have altogether?

£ and p

- 5 Annie and Alex are having pizza for lunch.

Tomato pizza	£5 and 40p	
Vegetable pizza	£7 and 75p	
Potato wedges	£1 and 79p	
Cheese bites	£2 and 83p	

- a) Annie orders a tomato pizza and cheese bites.
How much does it cost?

£ and p

- b) Alex has £10

She wants to buy potato wedges and a vegetable pizza.

Does she have enough money? _____

Explain your answer.

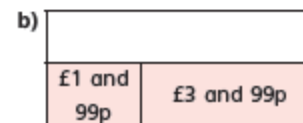


- 6 Mo buys a cap for £6 and 50p.
He also buys a key ring.
He spends £10 in total.
How much does the key ring cost?



£ and p

- 7 Complete the bar models.



- 8 Eva has £6 to spend.



What can Eva buy?

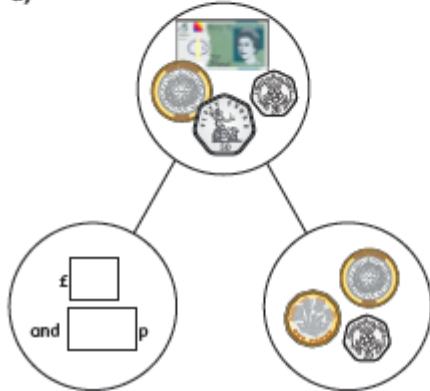
Compare answers with a partner.



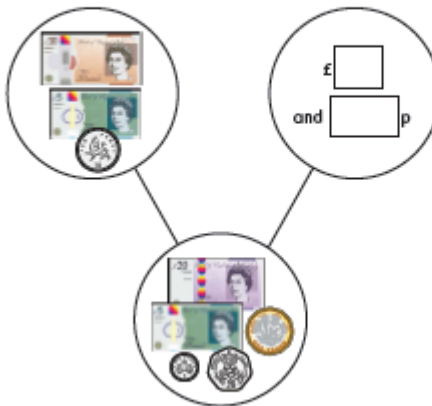
Subtract money

1 Complete the part-whole models.

a)



b)



2 Tommy has £5 and 75p in his pocket.



He puts £2 and 50p in his money box.
How much is left in his pocket?

£ and p

3 Whitney has £4 and 80p.
She buys this pair of socks.
How much money does Whitney have left?



£ and p

Day 3 continued

4 Complete the statements.

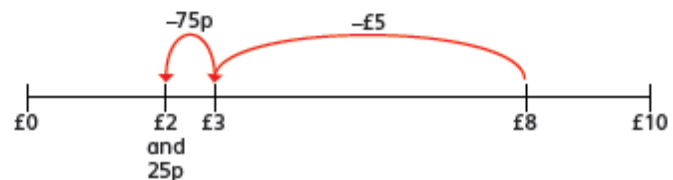
a) £8 and 65p – £5 and 25p = £ and p

b) £8 and 65p – £5 and 65p = £ and p

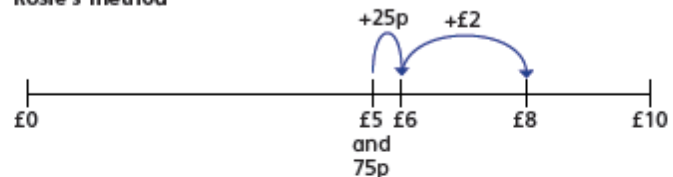
c) £8 and 65p – £8 and 30p = £ and p

5 Amir and Rosie use a number line to subtract £5 and 75p from £8

Amir's method



Rosie's method



Amir and Rosie both get £2 and 25p as their answer.

a) Explain each of these methods to a partner.

b) Whose method do you prefer? _____

Explain why.

6 Complete the number sentences.

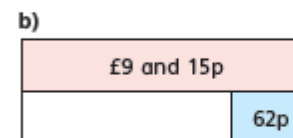
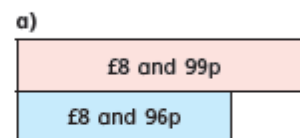
a) £3 and 50p – £1 and 20p = £ and p

b) £3 – £1 and 50p = £ and p

c) £6 and 15p – £2 and 85p = £ and p

d) £8 and 7p – £3 and 54p = £ and p

7 Complete the bar models.



The 3 times-table

1 Complete the multiplications.



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



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

2 Dani makes an array using counters.



Write two multiplication and two division facts represented by the array.

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

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

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

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

3 Complete the number sentences.

a) $6 \times 3 = \square$

d) $\square \div 3 = 5$

b) $3 \times \square = 27$

e) $12 \times 3 = \square$

c) $\square \div 11 = 3$

f) $\square \times 3 = 0$

4 Complete the number sentences.

a) $2 \times 3 = \square$

b) $6 = 3 \times \square$

$4 \times 3 = \square$

$12 = 3 \times \square$

$8 \times 3 = \square$

$18 = 3 \times \square$

What patterns do you notice?

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

a) $33 \div 11 \bigcirc 3$

d) $6 \times 3 \bigcirc 6 \div 3$

b) $27 \bigcirc 30 \div 3$

e) $3 \times 6 \bigcirc 18 \div 3$

c) $9 \div 3 \bigcirc 3 \times 6$

f) $0 \times 3 \bigcirc 3 \div 3$

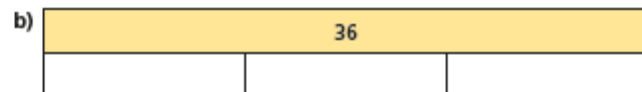
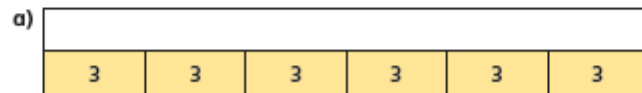
Day 4 continued

- 6 Colour all the numbers in the 3 times-table.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

What two patterns do you notice?

- 7 Work out the missing values in each bar model.



- 8 Mo has 7 packets of 3 stickers.
Eva has 3 packets of 9 stickers.
Who has the greatest number of stickers? _____



- 9 a) Complete the multiplications.

Are the answers odd or even? Tick your answer.

	odd	even
$1 \times 3 = 3$	<input type="checkbox"/>	<input type="checkbox"/>
$2 \times 3 = \square$	<input type="checkbox"/>	<input type="checkbox"/>
$3 \times 3 = \square$	<input type="checkbox"/>	<input type="checkbox"/>
$\square \times 3 = 12$	<input type="checkbox"/>	<input type="checkbox"/>

- b) What would the next multiplication be?

$$\square \times 3 = \square$$

- c) What do you notice about the products?

- d) Will the product of 11×3 be odd or even? _____

- 10 Use the fact that $12 \times 3 = 36$ to work out the calculations.

$$13 \times 3 = \square$$

$$3 \times 15 = \square$$

$$14 \times 3 = \square$$

$$24 \times 3 = \square$$

How did you work this out?

Did you find the answers in the same way as your partner?



Consecutive Numbers

Age 7 to 14 ★

Well I wonder how often you have noticed that there are numbers around the place that follow one after another 1, 2, 3 ... etc.? Sometimes they appear in reverse order when a countdown is happening for a launch of a rocket. But usually they happen in an order going up, like when you read through a book and notice the page numbers. These kinds of numbers are called consecutive numbers, you may have heard of the word before - it simply means that they are whole numbers that follow one after another.

This investigation uses the idea of consecutive numbers and gives us other numbers to explore. You may very well discover things that NO ONE else has discovered or written about before, and that's GREAT!

So this is how it starts. You need to choose any four consecutive numbers and place them in a row with a bit of a space between them, like this:

4 5 6 7

When you've chosen your consecutive numbers, stick with those same ones for quite a while, exploring ideas before you change them in any way. Now place + and - signs in between them, something like this :

$$4 + 5 - 6 + 7$$
$$4 - 5 + 6 + 7$$

and so on until you have found all the possibilities. Are you sure you've got them all? You should include one using all +'s and one that includes all -'s.

Now work out the answers to all your calculations (e.g. $4 - 5 + 6 + 7 = 12$ and so on).

Now try other sets of four consecutive numbers and look carefully at the sets of answers that you get each time.

Are you surprised by anything you notice?

It is probably a good idea to write down your 'noticings'. This can lead you to test some ideas out by starting with new sets of consecutive numbers and seeing if the same things happen in the same way.

You might now be doing some predictions that you can test out...

FINALLY, it is good to ask the question "I wonder what would happen if I ... ?" You may have thought up your own questions to explore further. Here are some we thought of:

"What would happen if I took the consecutive numbers in an order going down, instead of up?"

"What would happen if I only used sets of three consecutive numbers?"

"What would happen if I used more consecutive numbers?"

"What would happen if I changed the rule and allowed consecutive numbers to include fractions or decimals?"

"What would happen if I allowed a + or - sign before the first number?"

Day 2: Code Crackers:

Queen Victoria was the monarch in Britain and Ireland from 1837 to 1901. This is the second-longest reign of any British monarch. She was only 18 when she became queen. In 1840, Victoria married Prince Albert of Saxe-Coburg and Gotha. Together, they had nine children. Unfortunately in 1861, Albert passed away. Victoria was devastated and wore black for the rest of her reign.

Solve each question below. Then use the key to find the answer to the joke.

Letters can be used more than once.

1. $4 \times 2 = 8 \times ?$

2. If $3 \times 7 = 21$ then $7 \times 3 =$

3. Sam has 9 sweets. Jenny has 8 times as many sweets. How many sweets does Jenny have?

4. $12 \times 3 =$

5. If $8 \times 8 = 64$ then $64 \div 8 =$

Did you know?

Queen Victoria became Empress of India in 1877.

6. $36 \div 4 =$

7. $4 \div 4 =$

8. $40 \div 8 =$

9. If $4 \times 12 = 48$ then $48 \div 4 =$

10. $11 \times 4 =$

11. Stef has 7 pencils. Tom has 4 times as many. How many pencils does Tom have?

A	B	C	D	E	F	G	H	I	J	K	L	M
33	48	16	5	72	82	32	21	9	35	4	46	7
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
28	12	3	2	40	8	1	80	11	44	17	36	0

What is the first thing a king or queen does when they come to the throne?

1 2 3 4 5 6 7 8 9 10 11

Day 3: Multiplication: Formal layout

$$\begin{array}{r} \text{T U} \\ 37 \\ \times 4 \\ \hline 148 \end{array}$$
$$7 \times 4 = 28$$
$$30 \times 4 = 120$$
$$37 \times 4 = 148$$

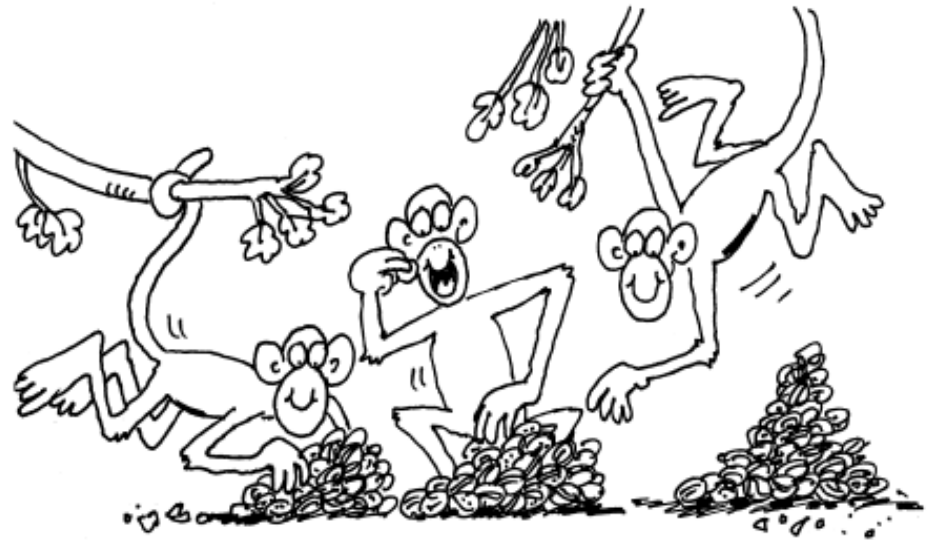
Day 4: Number bonds

Set a five minute timer and fill in the gaps.

- | | |
|-------------------|--------------------|
| 1) 6 + ___ = 10 | 11) 14 + ___ = 20 |
| 2) 3 + ___ = 10 | 12) 10 + ___ = 20 |
| 3) 8 + ___ = 10 | 13) 17 + ___ = 20 |
| 4) 1 + ___ = 10 | 14) 4 + ___ = 20 |
| 5) 2 + ___ = 10 | 15) 7 + ___ = 20 |
| 6) ___ + 5 = 10 | 16) 8 + ___ = 100 |
| 7) ___ + 4 = 10 | 17) 30 + ___ = 100 |
| 8) 11 + ___ = 20 | 18) 20 + ___ = 100 |
| 9) 12 + ___ = 20 | 19) ___ + 11 = 100 |
| 10) 16 + ___ = 20 | 20) ___ + 2 = 100 |

Day 4: problem of the week

Three monkeys



Three monkeys ate a total of 25 nuts.
Each of them ate a different odd number of nuts.

How many nuts did each of the monkeys eat?
Find as many different ways to do it as you can.

Teaching objectives

Solve mathematical problems or puzzles.
Recognise odd and even numbers.
Add three or four small numbers mentally.

Day 5: 4 Dom

4 Dom

Age 5 to 16 ★★★

Use these four dominoes to make a square that has the same number of dots on each side.

