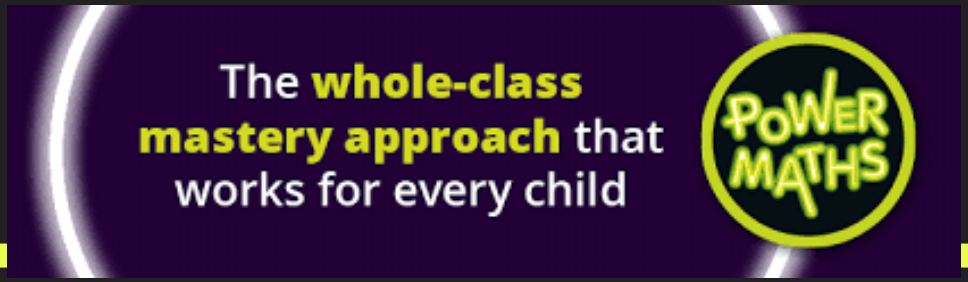
Trevisker

Primary School

Presents...

Power Maths is our new, exciting scheme which is used in Years One to Six. It is a whole class approach which aims to make learning fun and create connections between concepts, allowing children to explore their learning and master new ideas with a deep understanding.

Alongside the textbooks and online resources, each child has their own practice book which they will use during lessons.



Meet the Power Maths Team

Flexible Flo

is open-minded and sometimes indecisive. She likes to think differently and come up with a variety of methods or ideas.

‘Let’s try it this way ...’
‘Can we do it differently?’
‘I’ve got another way of doing this!’

Determined Dexter

is resolute, resilient and systematic. He concentrates hard, always tries his best and he'll never give up – even though he doesn't always choose the most efficient methods!

'Let's try again.'
'Mistakes are cool!'
'Have I found all of the solutions?'

Curious Ash

is eager, interested and inquisitive, and he loves solving puzzles and problems.
Ash asks lots of questions but sometimes gets distracted.

Brave Astrid

is confident, willing to take risks and unafraid of failure. She is never scared to jump straight into a problem or question, and although she often makes simple mistakes she is happy to talk them through with others.

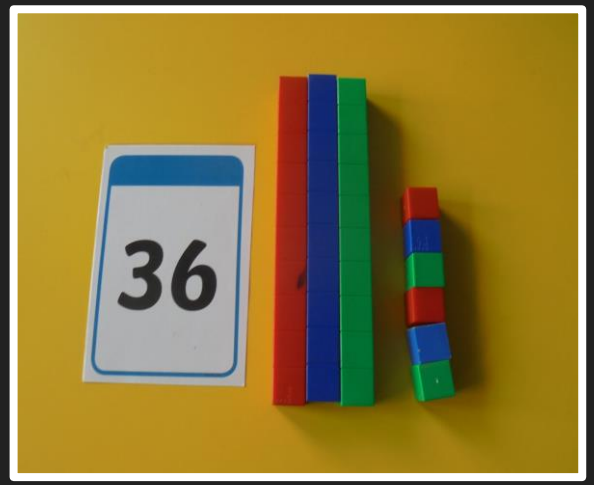
‘I’m going to try this!’
‘I know how to do that!’
‘Want to share my ideas?’

The Power Maths Team grow and develop, just as your children do...


Unit 9: Numbers to 50, Lesson 2
Counting to 50 2
Discover
WIN
Start
1 a) Which number is the lily pad on?
How do you know?
b) The jumps back to the pond.
What numbers does the jump over?
76
Share
a)
WIN
The lily pad is on number 32.
I counted backwards.
b)
WIN
The jumps back over 3 numbers, 29, 28 and 27, to get to the pond.
Think together
1 Which numbers does the jump over to get to the pond?
2 What are the missing numbers?
a)
b)
78
3 Ben is lost in the forest.
He must find his way from 34 to 45, in order.
Can you help him to find his way out?
CHALLENGE
Exit
Entry
How did you help him find the way?
+ Practice book 38 p32
79

Year 1

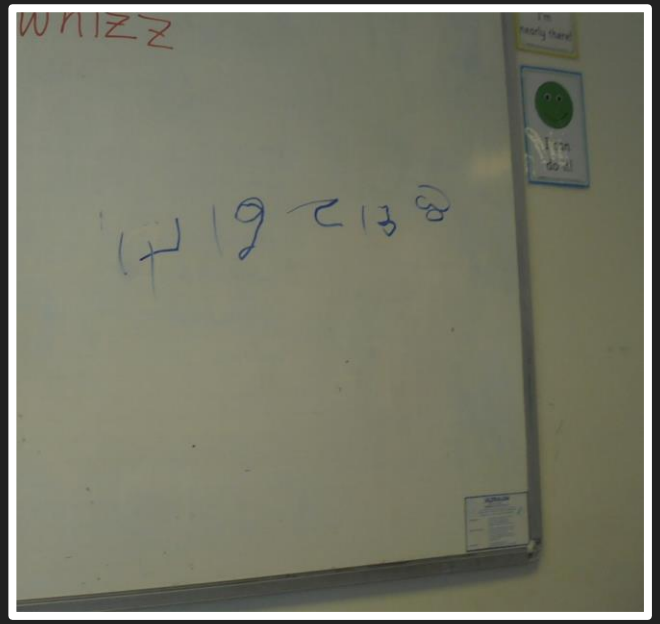

18


36

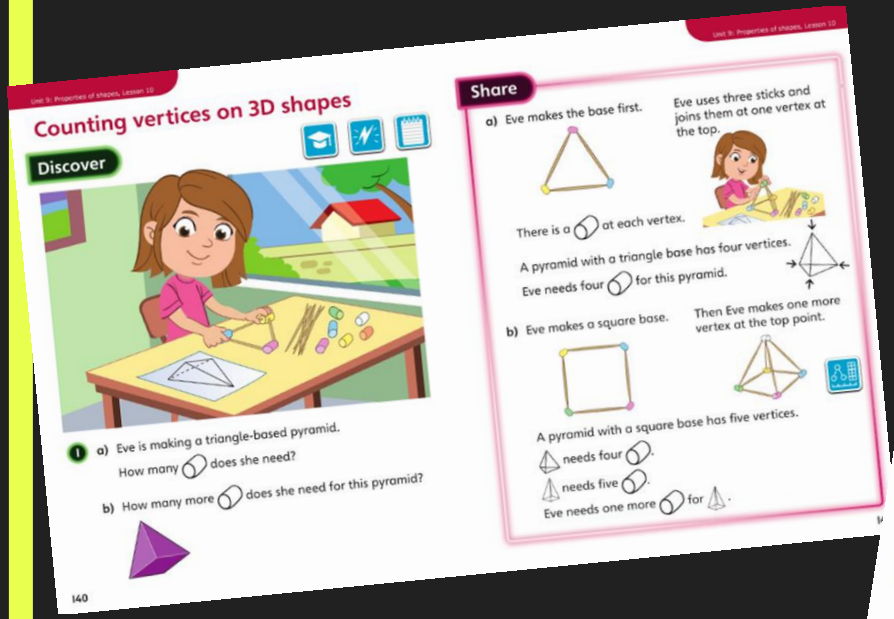

22

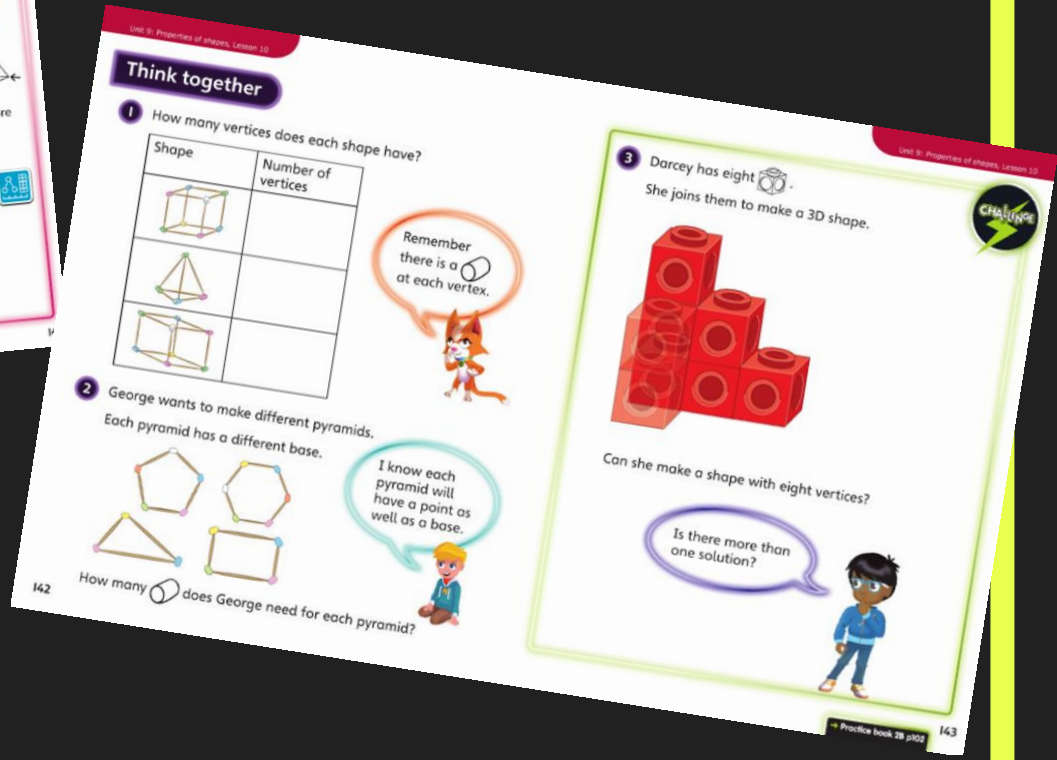

36
22


SPOT SO
Wildflowers
18


WHIZZ

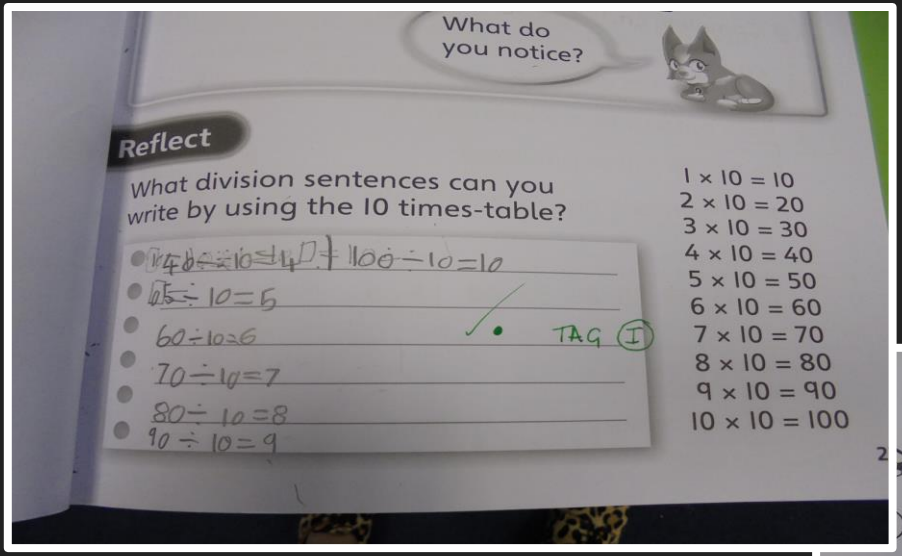

how?
big
small
said
I feel .....
tree frog
piranha
caiman
lemur
python
marmoset
leopard
gorilla
tiger
panda
Sloths
Emergent layer
forest floor


Unit 9: Properties of shapes, Lesson 10
Counting vertices on 3D shapes
Discover
1 a) Eve is making a triangle-based pyramid.
How many ◯ does she need?
b) How many more ◯ does she need for this pyramid?
140
Unit 9: Properties of shapes, Lesson 10
Share
a) Eve makes the base first.
Eve uses three sticks and joins them at one vertex at the top.
There is a ◯ at each vertex.
A pyramid with a triangle base has four vertices.
Eve needs four ◯ for this pyramid.
b) Eve makes a square base.
Then Eve makes one more vertex at the top point.
A pyramid with a square base has five vertices.
needs four ◯.
needs five ◯.
Eve needs one more ◯ for .


Unit 9: Properties of shapes, Lesson 10
Think together
1 How many vertices does each shape have?
Shape
Number of vertices
Remember there is a ◯ at each vertex.
2 George wants to make different pyramids.
Each pyramid has a different base.
I know each pyramid will have a point as well as a base.
How many ◯ does George need for each pyramid?
142
Unit 9: Properties of shapes, Lesson 10
CHALLENGE
3 Darcey has eight .
She joins them to make a 3D shape.
Can she make a shape with eight vertices?
Is there more than one solution?
→ Practice book 2B, p102
143

Year 2


wild
flood



What do you notice?

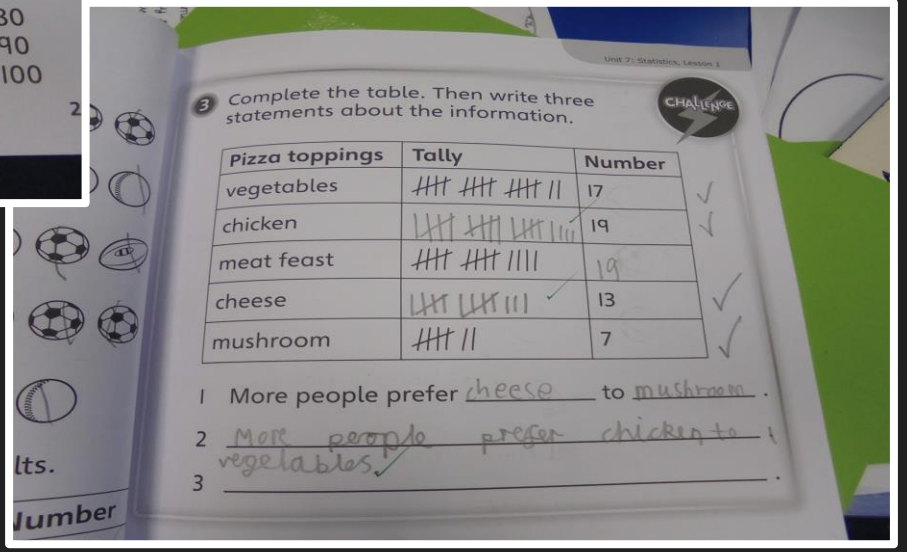
Reflect

What division sentences can you write by using the 10 times-table?

- ~~40÷10=4~~ ~~100÷10=10~~
- ~~50÷10=5~~
- 60÷10=6
- 70÷10=7
- 80÷10=8
- 90÷10=9

TAG (I)

1 × 10 = 10
2 × 10 = 20
3 × 10 = 30
4 × 10 = 40
5 × 10 = 50
6 × 10 = 60
7 × 10 = 70
8 × 10 = 80
9 × 10 = 90
10 × 10 = 100



Unit 7: Statistics, Lesson 1

3 Complete the table. Then write three statements about the information.

CHALLENGE

Pizza toppings	Tally	Number
vegetables	𝍸 𝍸 𝍸 ||	17
chicken	𝍸 𝍸 𝍸 ||||	19
meat feast	𝍸 𝍸 ||||	19
cheese	𝍸 𝍸 |||	13
mushroom	𝍸 ||	7

1 More people prefer cheese to mushroom.

2 More people prefer chicken to vegetables.

3 _____.

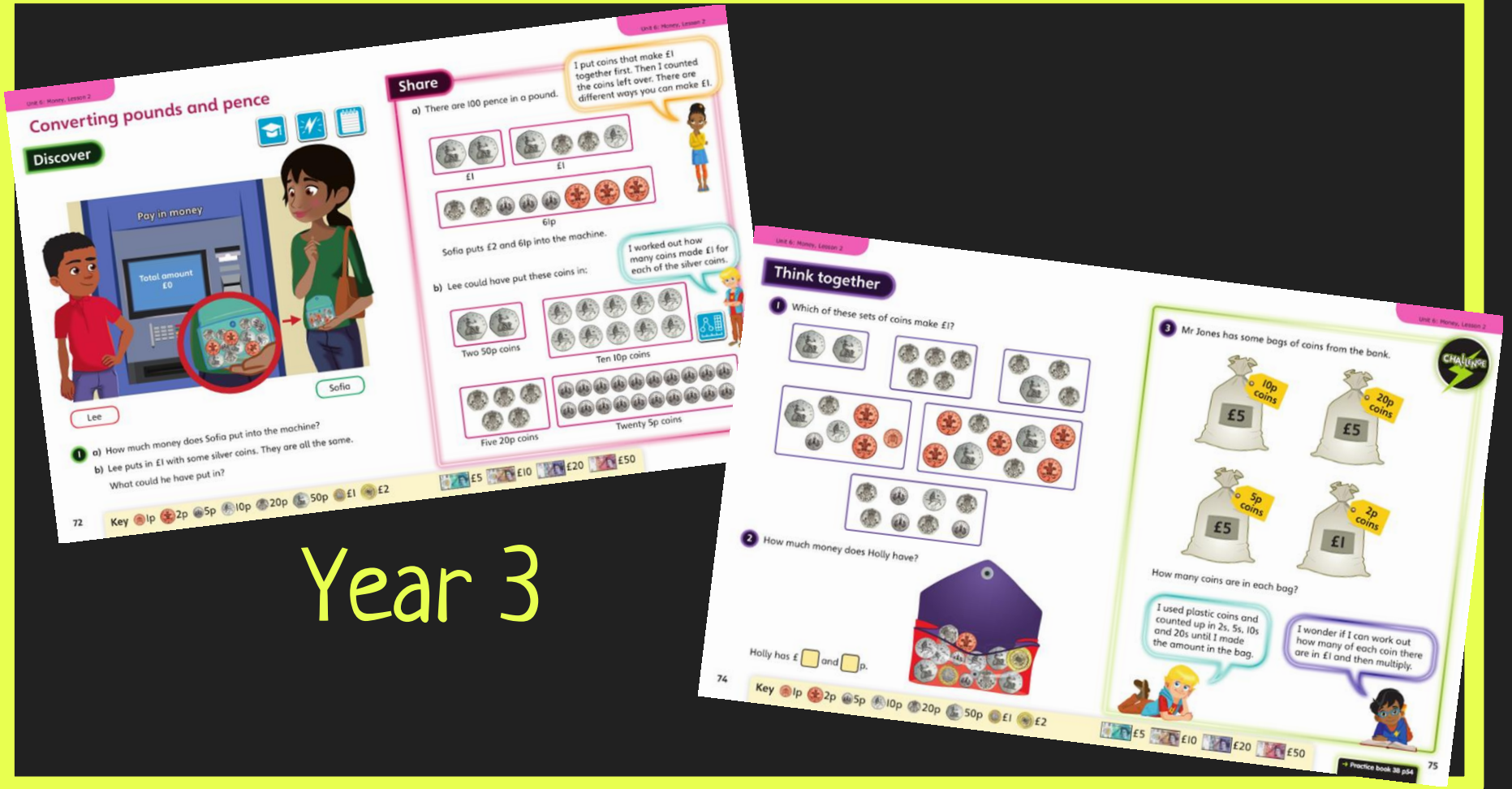
lts.

Number

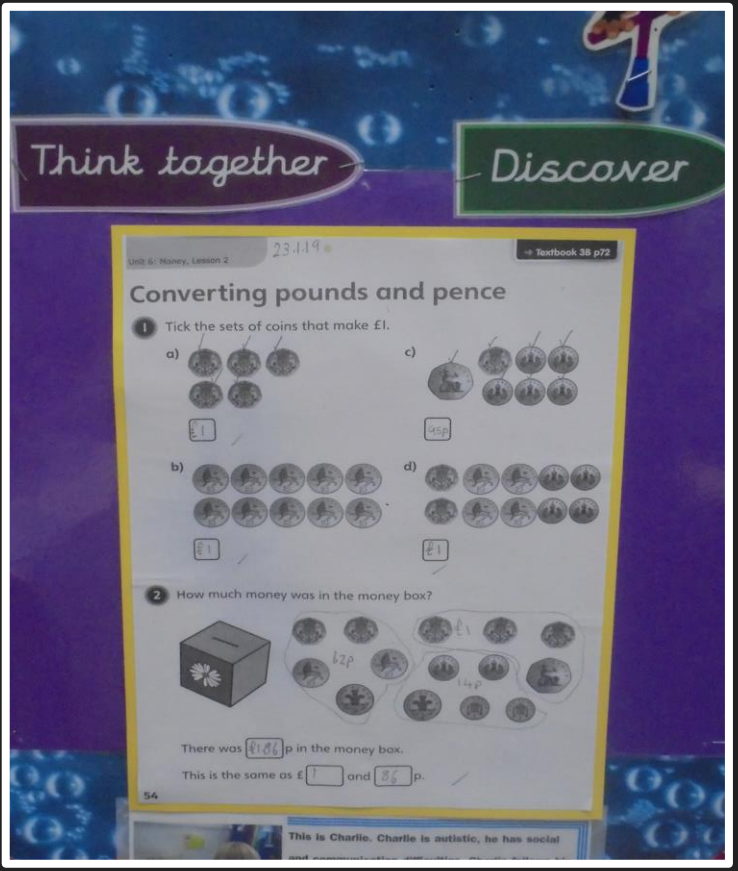

STRAWBERRY JAM





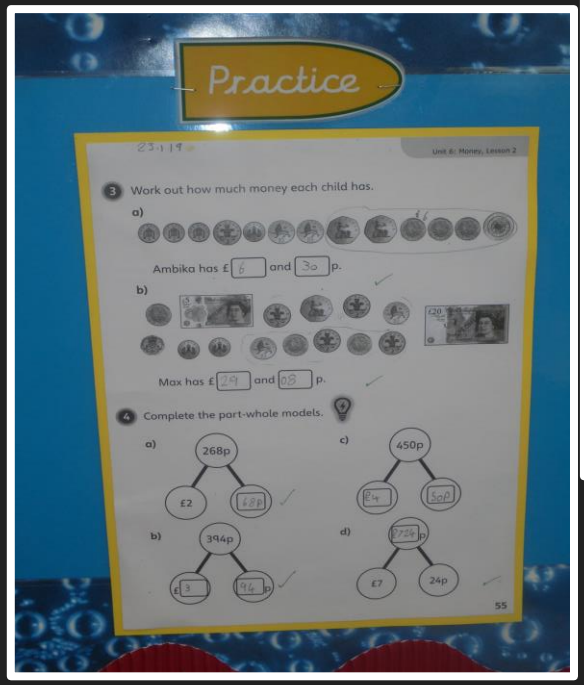

Converting pounds and pence
Discover
Pay in money
Total amount £0
Sofia
Lee
1 a) How much money does Sofia put into the machine?
b) Lee puts in £1 with some silver coins. They are all the same. What could he have put in?
Share
a) There are 100 pence in a pound.
I put coins that make £1 together first. Then I counted the coins left over. There are different ways you can make £1.
£1
£1
61p
Sofia puts £2 and 61p into the machine.
b) Lee could have put these coins in:
I worked out how many coins made £1 for each of the silver coins.
Two 50p coins
Ten 10p coins
Five 20p coins
Twenty 5p coins
Key 1p 2p 5p 10p 20p 50p £1 £2 £5 £10 £20 £50
72
Think together
1 Which of these sets of coins make £1?
2 How much money does Holly have?
Holly has £ and p.
3 Mr Jones has some bags of coins from the bank.
CHALLENGE
10p coins
20p coins
5p coins
2p coins
£5
£5
£5
£1
How many coins are in each bag?
I used plastic coins and counted up in 2s, 5s, 10s and 20s until I made the amount in the bag.
I wonder if I can work out how many of each coin there are in £1 and then multiply.
Practice book 3B p54
74
75

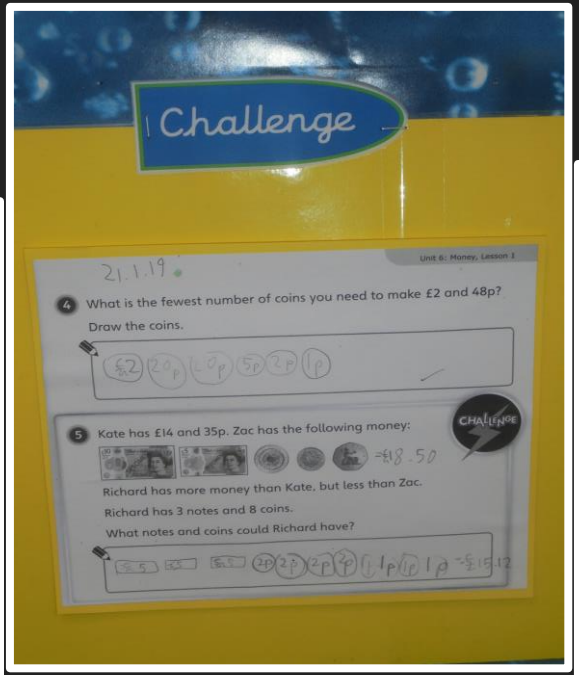
Year 3


Think together
Discover
Unit 6: Money, Lesson 2
23.1.19
→ Textbook 3B p72
Converting pounds and pence
1 Tick the sets of coins that make £1.
a)
c)
45p
b)
d)
£1
2 How much money was in the money box?
12p
14p
There was £1.86 p in the money box.
This is the same as £ 1 and 86 p.
54
This is Charlie. Charlie is autistic, he has social

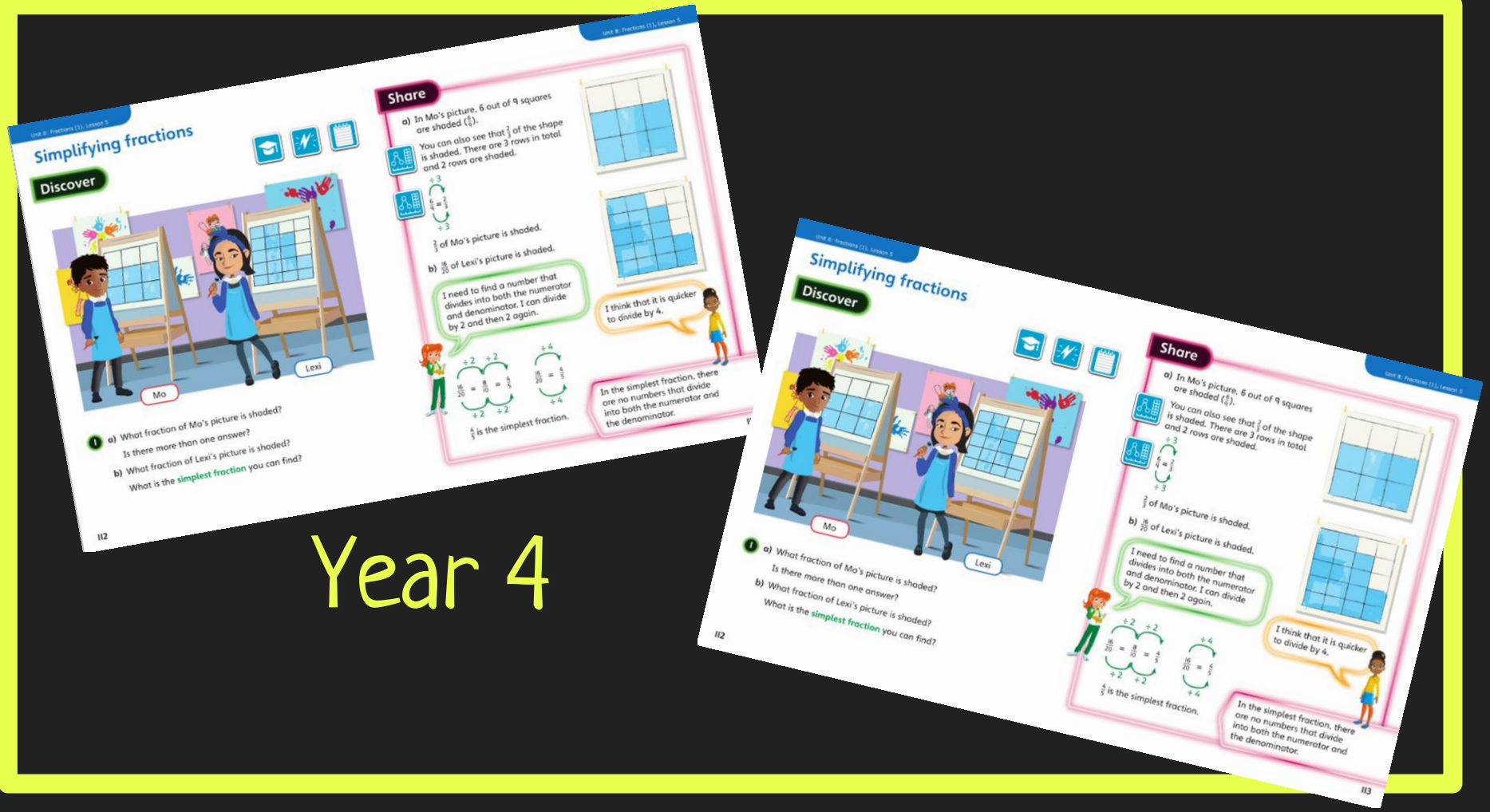

20÷5=4=16÷4=4
2 x 5 = 10
2 x 50 = 100
6 x 6 = 36


4 x Table


Practice
23.1.19
Unit 6: Money, Lesson 2
3 Work out how much money each child has.
a)
Ambika has £ 6 and 30 p.
b)
Max has £ 29 and 08 p.
4 Complete the part-whole models.
a)
268p
£2
68p
b)
394p
£3
96p
c)
450p
£4
50p
d)
724p
£7
24p
55


Challenge
21.1.19
Unit 6: Money, Lesson 3
4 What is the fewest number of coins you need to make £2 and 48p?
Draw the coins.
£2
20p
5p
2p
1p
5 Kate has £14 and 35p. Zac has the following money:
=£18.50
CHALLENGE
Richard has more money than Kate, but less than Zac.
Richard has 3 notes and 8 coins.
What notes and coins could Richard have?
=£15.12


Reflect
Reflect
Reena says that she has £3 and 20p.
What mistake could Reena have made?
She might have thought that the 20p was a one pound
I.
53


Unit 8: Fractions (1), Lesson 5
Simplifying fractions
Discover
Mo
Lexi
1 a) What fraction of Mo's picture is shaded?
Is there more than one answer?
b) What fraction of Lexi's picture is shaded?
What is the simplest fraction you can find?
112
Share
a) In Mo's picture, 6 out of 9 squares are shaded ($\frac{6}{9}$).
You can also see that $\frac{2}{3}$ of the shape is shaded. There are 3 rows in total and 2 rows are shaded.
÷3
$\frac{6}{9} = \frac{2}{3}$
÷3
$\frac{2}{3}$ of Mo's picture is shaded.
b) $\frac{16}{20}$ of Lexi's picture is shaded.
I need to find a number that divides into both the numerator and denominator. I can divide by 2 and then 2 again.
I think that it is quicker to divide by 4.
÷2 ÷2
$\frac{16}{20} = \frac{8}{10} = \frac{4}{5}$
÷2 ÷2
÷4
$\frac{16}{20} = \frac{4}{5}$
÷4
$\frac{4}{5}$ is the simplest fraction.
In the simplest fraction, there are no numbers that divide into both the numerator and the denominator.
Year 4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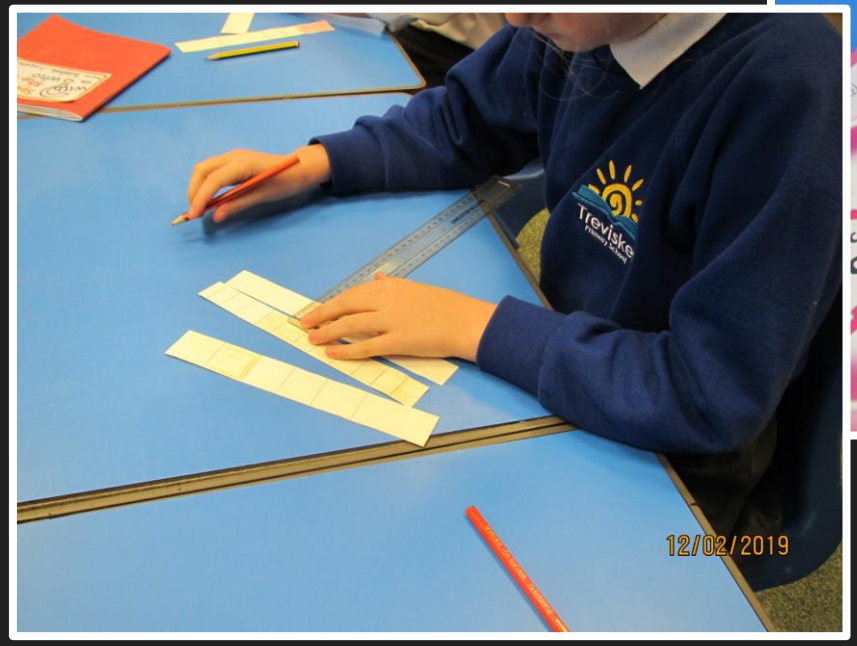
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Year 4
Practice
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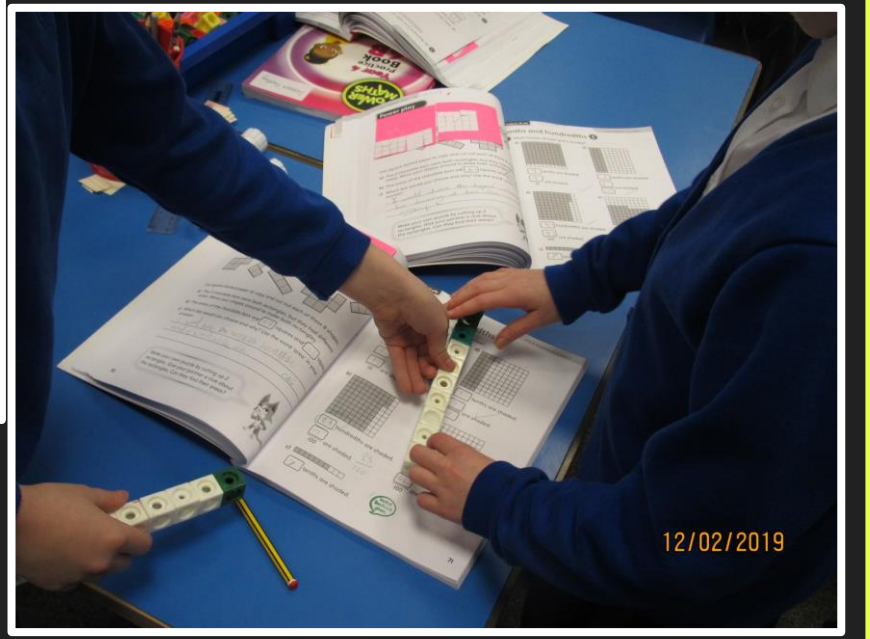
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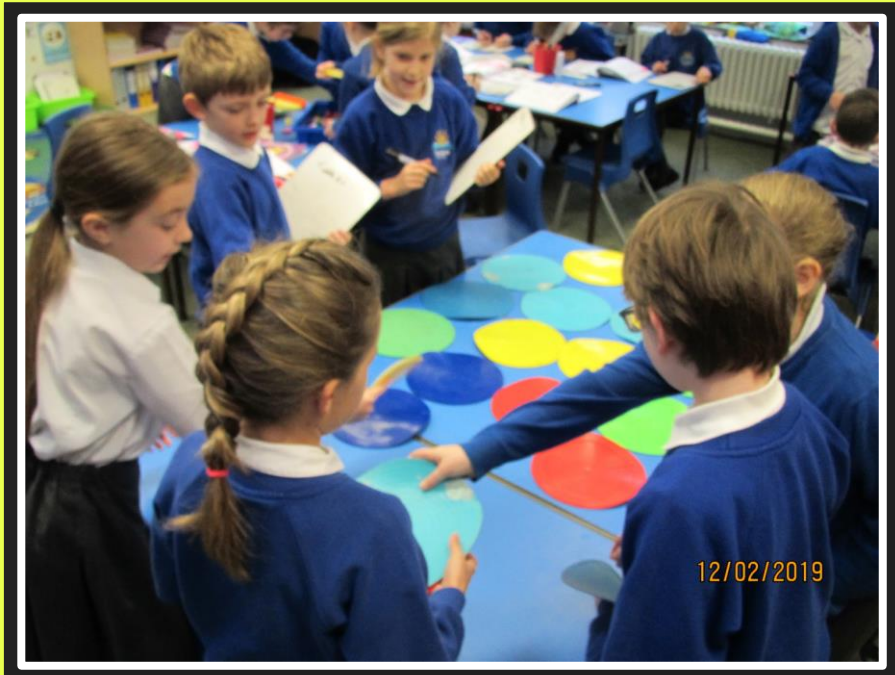
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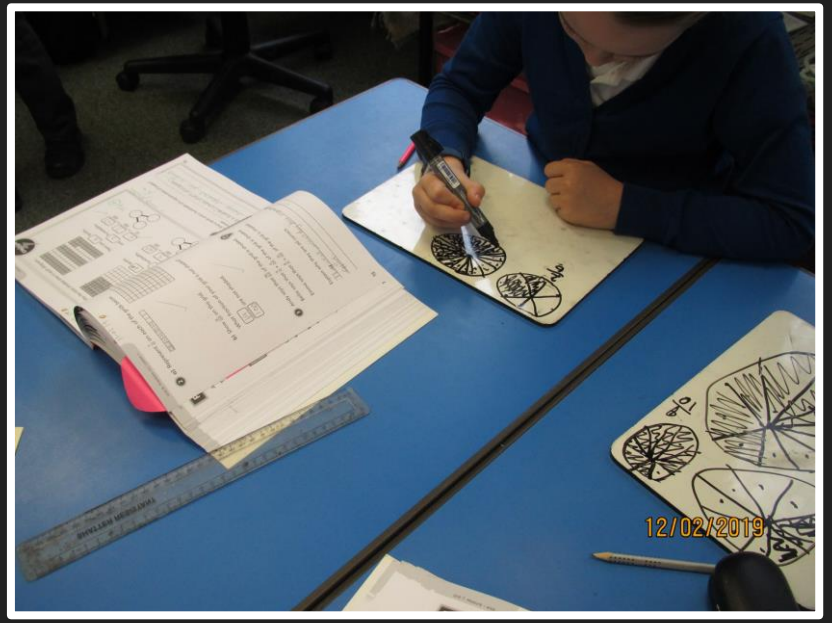
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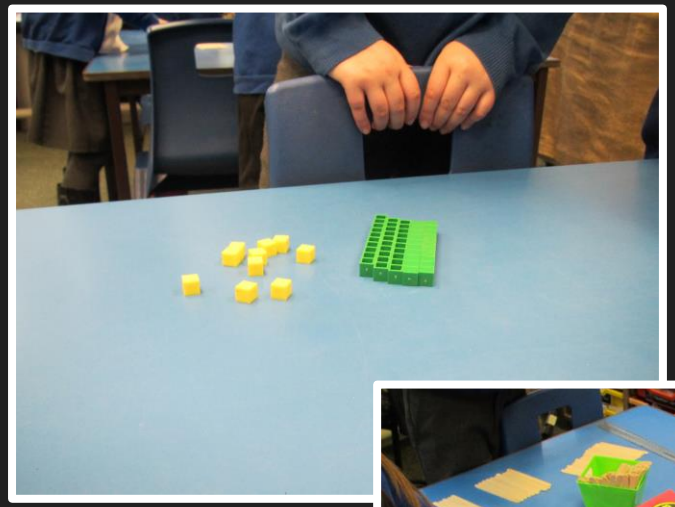

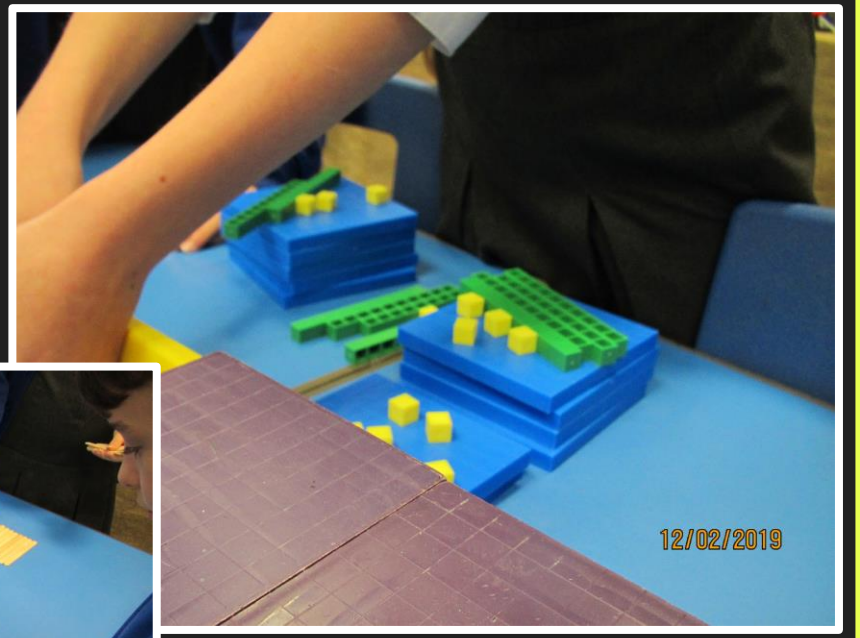
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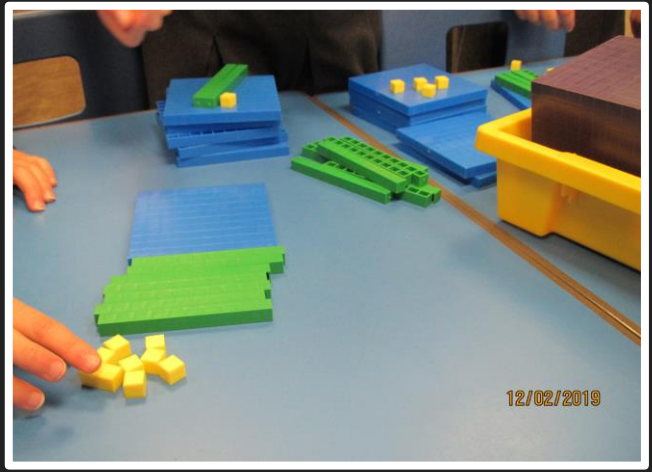
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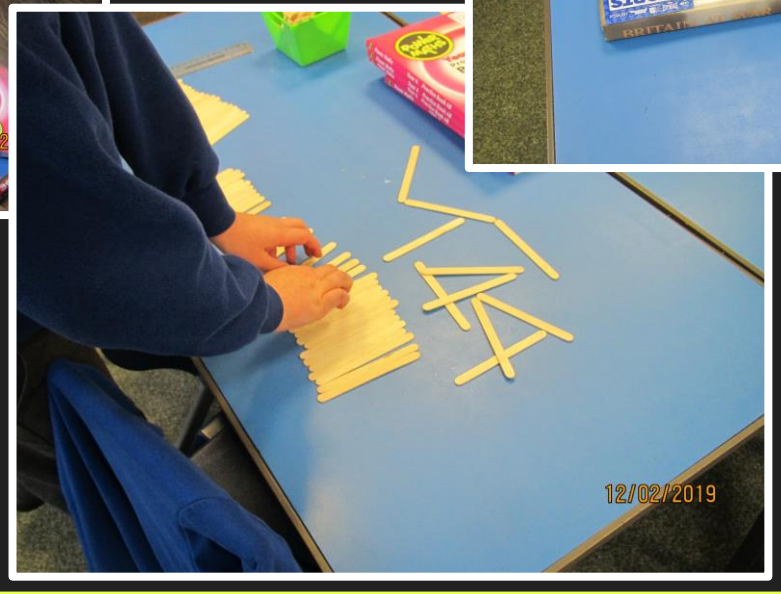
12/02/2019


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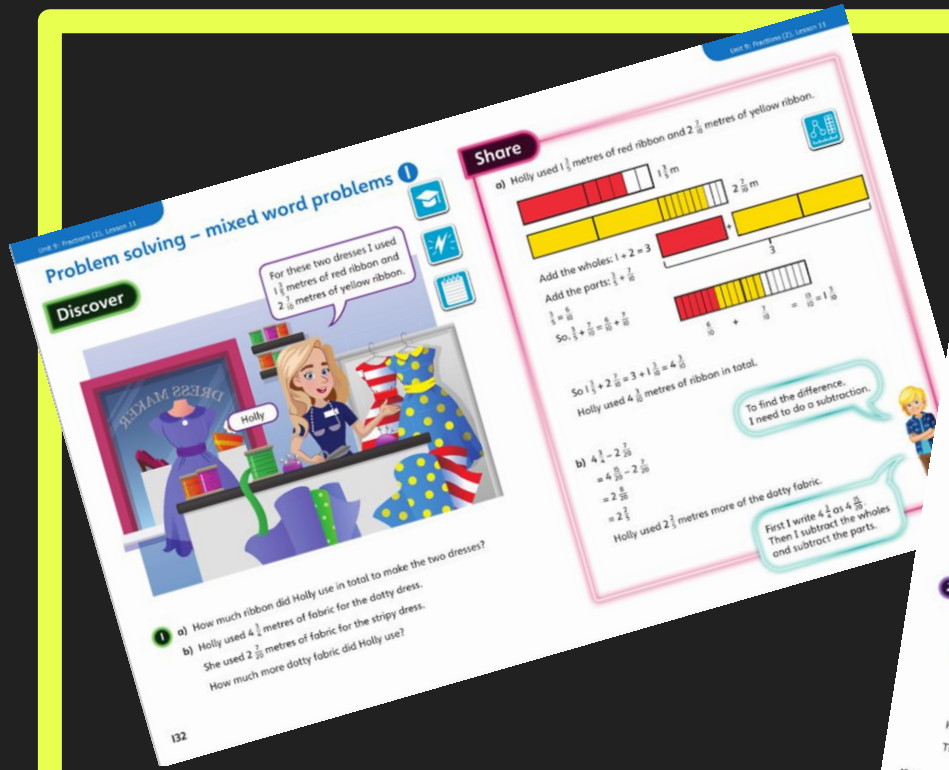
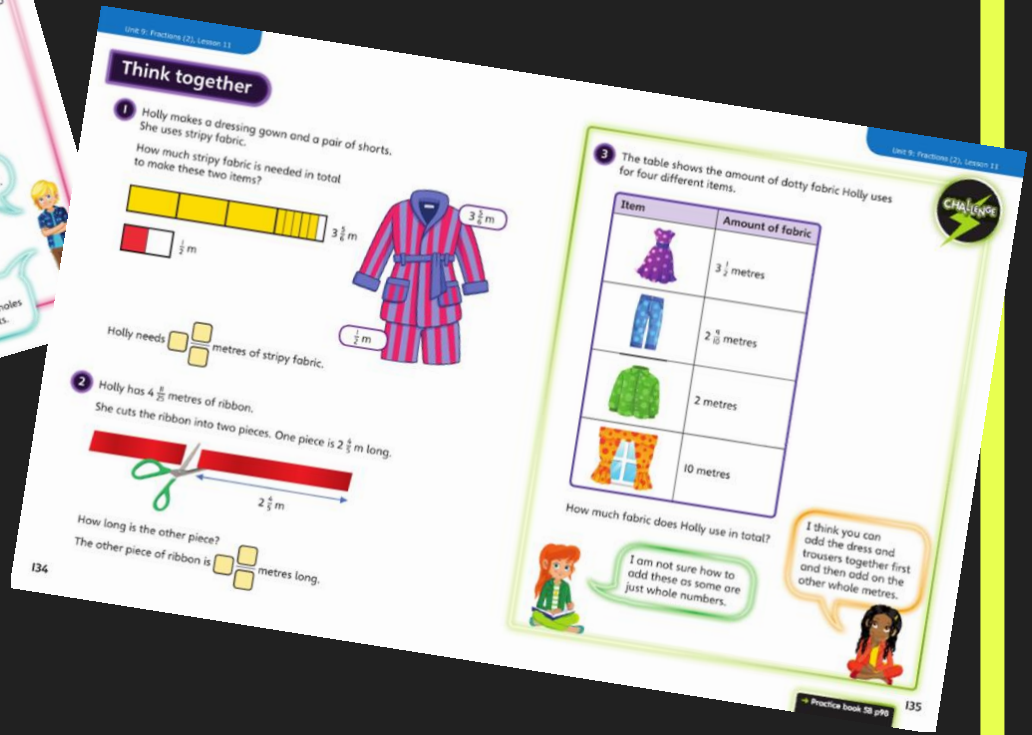
Trevisker
Practice Book 6B
12/02/2019
POWER MATHS

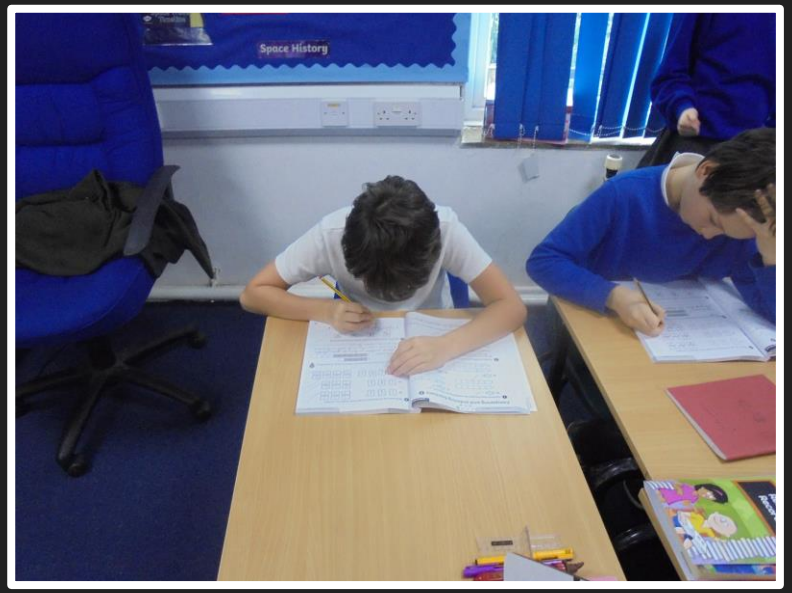

Trevisker
Primary School
Share
Discover
What is area?

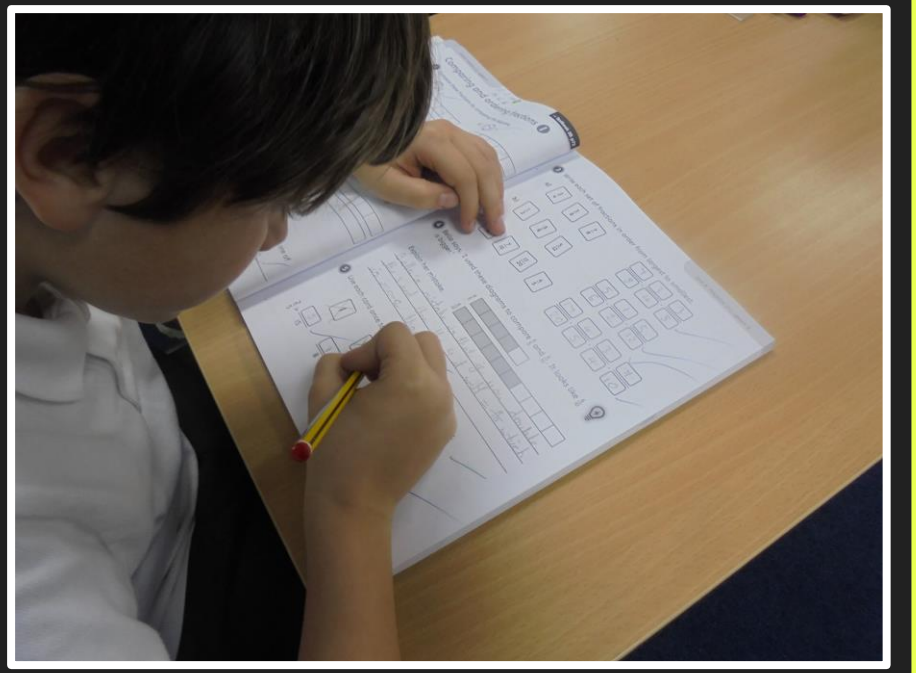

Share
Discover
What is area?
12/02/2019

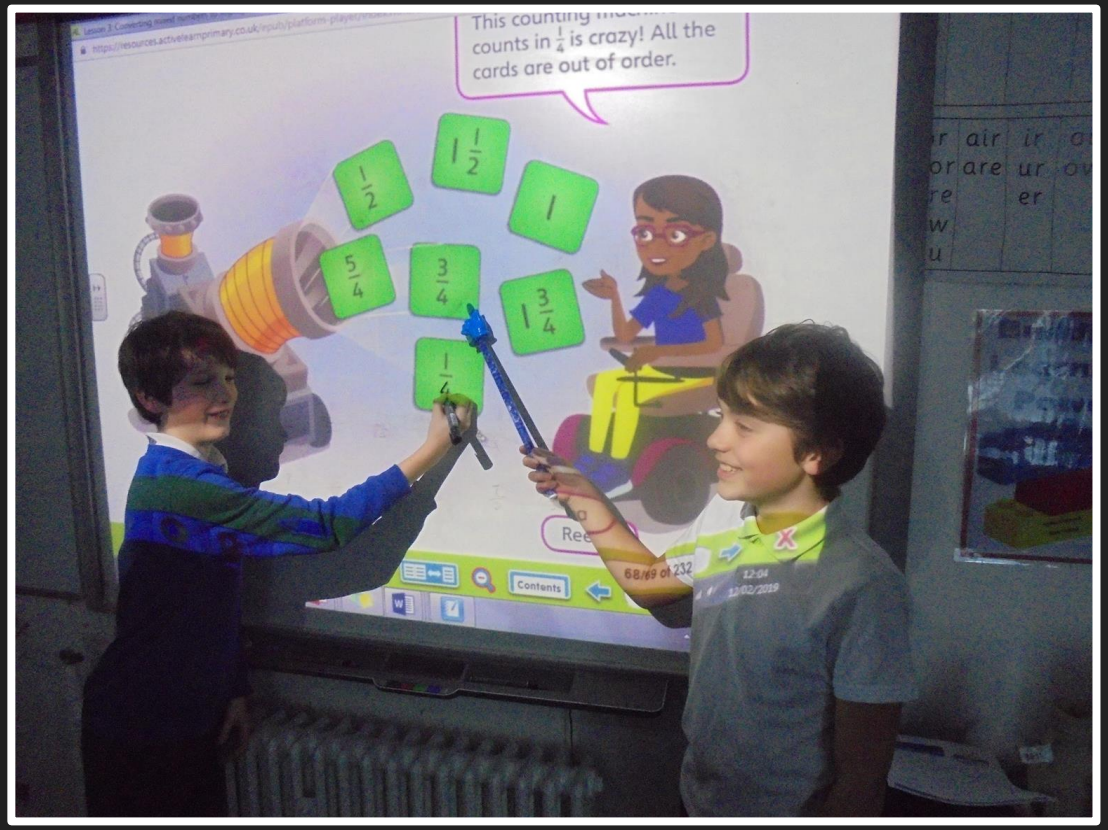

Unit 9: Fractions (2), Lesson 11
Problem solving – mixed word problems
Discover
For these two dresses I used 1 1/4 metres of red ribbon and 2 7/10 metres of yellow ribbon.
Holly
1 a) How much ribbon did Holly use in total to make the two dresses?
b) Holly used 4 1/4 metres of fabric for the dotty dress. She used 2 2/20 metres of fabric for the stripy dress. How much more dotty fabric did Holly use?
132
Share
a) Holly used 1 1/4 metres of red ribbon and 2 7/10 metres of yellow ribbon.
1 1/4 m
2 7/10 m
Add the wholes: 1 + 2 = 3
Add the parts: 1/4 + 7/10
1/4 = 5/20
So, 1/4 + 7/10 = 5/20 + 14/20
So 1 1/4 + 2 7/10 = 3 + 1 19/20 = 4 19/20
Holly used 4 19/20 metres of ribbon in total.
To find the difference, I need to do a subtraction.
b) 4 1/4 − 2 7/10
= 4 5/20 − 2 14/20
= 2 25/20
= 2 5/20
Holly used 2 5/20 metres more of the dotty fabric.
First I write 4 1/4 as 4 5/20. Then I subtract the wholes and subtract the parts.

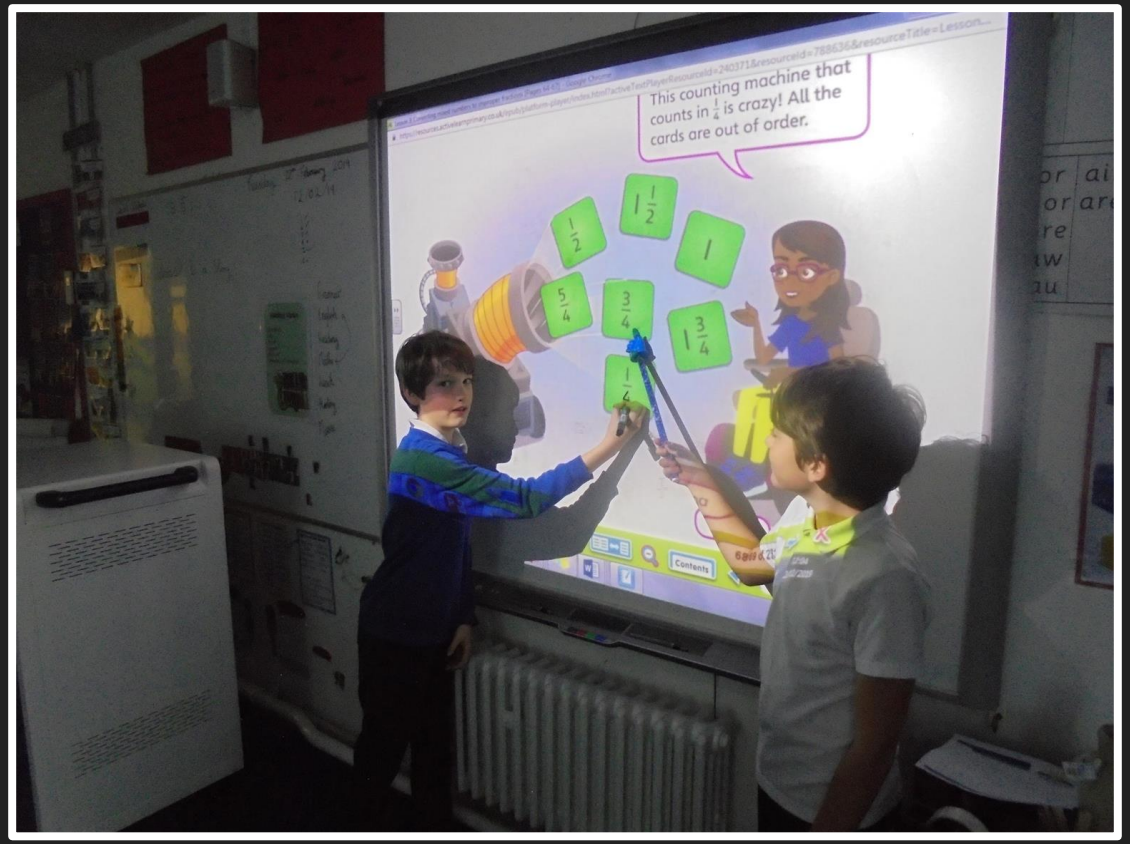

Unit 9: Fractions (2), Lesson 11
Think together
1 Holly makes a dressing gown and a pair of shorts. She uses stripy fabric.
How much stripy fabric is needed in total to make these two items?
3 3/8 m
1/2 m
3 3/8 m
1/2 m
Holly needs ____ metres of stripy fabric.
2 Holly has 4 8/20 metres of ribbon.
She cuts the ribbon into two pieces. One piece is 2 4/5 m long.
2 4/5 m
How long is the other piece?
The other piece of ribbon is ____ metres long.
134
3 The table shows the amount of dotty fabric Holly uses for four different items.
CHALLENGE
Item | Amount of fabric
3 1/2 metres
2 9/10 metres
2 metres
10 metres
How much fabric does Holly use in total?
I am not sure how to add these as some are just whole numbers.
I think you can add the dress and trousers together first and then add on the other whole metres.
→ Practice book 58 p98
135

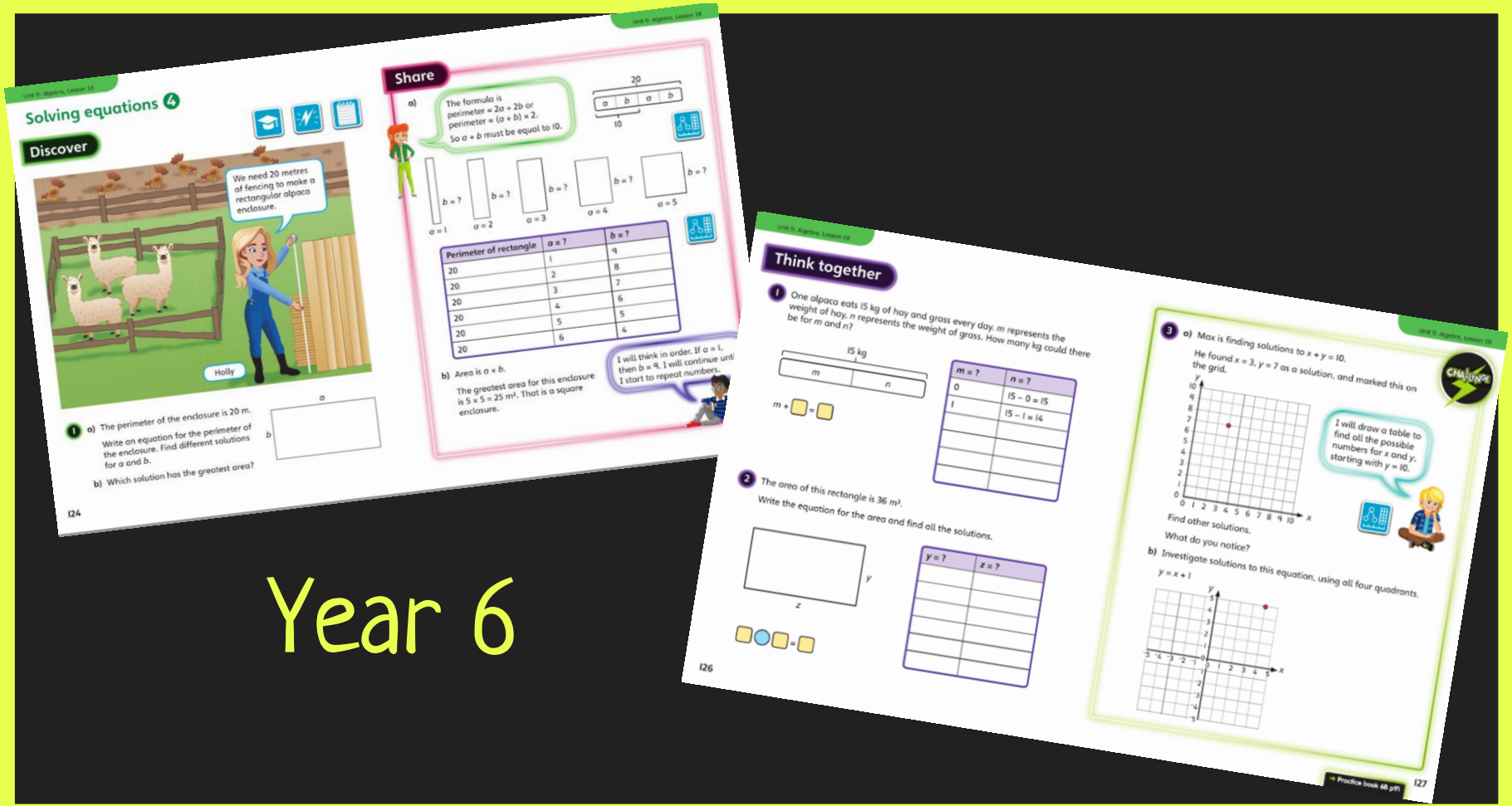
Year 5


Space History




counts in $\frac{1}{4}$ is crazy! All the cards are out of order.
$\frac{1}{2}$
$1\frac{1}{2}$
1
$\frac{5}{4}$
$\frac{3}{4}$
$1\frac{3}{4}$
$\frac{1}{4}$
Contents


This counting machine that counts in $\frac{1}{4}$ is crazy! All the cards are out of order.
$\frac{1}{2}$
$1\frac{1}{2}$
1
$\frac{5}{4}$
$\frac{3}{4}$
$1\frac{3}{4}$
$\frac{1}{4}$
Contents


Unit 9: Algebra, Lesson 10
Solving equations 4
Discover
We need 20 metres of fencing to make a rectangular alpaca enclosure.
Holly
a
b
1 a) The perimeter of the enclosure is 20 m.
Write an equation for the perimeter of the enclosure. Find different solutions for a and b.
b) Which solution has the greatest area?
124
Share
a) The formula is perimeter = 2a + 2b or perimeter = (a + b) × 2.
So a + b must be equal to 10.
20
a b a b
10
a = 1 b = ?
a = 2 b = ?
a = 3 b = ?
a = 4 b = ?
a = 5 b = ?
Perimeter of rectangle | a = ? | b = ?
20 | 1 | 9
20 | 2 | 8
20 | 3 | 7
20 | 4 | 6
20 | 5 | 5
20 | 6 | 4
b) Area is a × b.
The greatest area for this enclosure is 5 × 5 = 25 m². That is a square enclosure.
I will think in order. If a = 1, then b = 9. I will continue until I start to repeat numbers.
Think together
1 One alpaca eats 15 kg of hay and grass every day. m represents the weight of hay, n represents the weight of grass. How many kg could there be for m and n?
15 kg
m n
m + ☐ = ☐
m = ? | n = ?
0 | 15 − 0 = 15
1 | 15 − 1 = 14
2 The area of this rectangle is 36 m².
Write the equation for the area and find all the solutions.
y
z
☐ ○ ☐ = ☐
y = ? | z = ?
126
3 a) Max is finding solutions to x + y = 10.
He found x = 3, y = 7 as a solution, and marked this on the grid.
I will draw a table to find all the possible numbers for x and y, starting with y = 10.
Find other solutions.
What do you notice?
b) Investigate solutions to this equation, using all four quadrants.
y = x + 1
Practice book 6B p71
127

Year 6


MICHAEL MORPURGO
WAR HORSE