

Expectations in Maths in Year 2

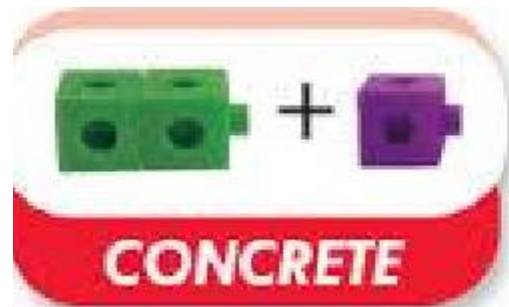
Our hopes, aims and expectations for your child

Age Related Expectations in Maths

- count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- recognise the place value of each digit in a two-digit number (tens, ones)
- identify, represent and estimate numbers using different representations, including the number line
- compare and order numbers from 0 up to 100; use $>$ and $=$ signs
- read and write numbers to at least 100 in numerals and in words
- use place value and number facts to solve problems. Recognise and use number bonds and subtraction facts to 20.
- solve problems with addition and subtraction:
 - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
 - applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - adding three one-digit numbers
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Maths in Year 2

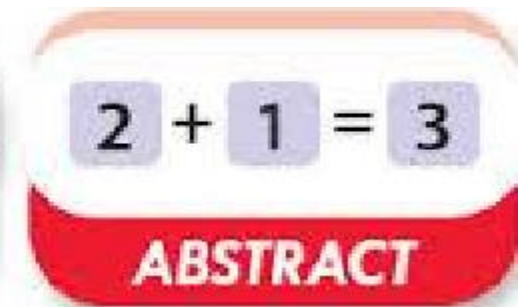
- CPA Approach



Concrete: Using cubes, counters, physical equipment to solve a problem.



Pictorial: Using pictures to visualize the problem to help solve it.



Abstract: Using known facts or written methods to solve a problem.

Methods of calculation - addition

Skill: Add 1 and 2-digit numbers to 20	Year: 1/2
$8 + 7 = 15$	When adding one-digit numbers that cross 10, it is important to highlight the importance of ten ones equalling one ten. In Year 1, this is only done just by counting on. From Year 2, use different manipulatives can be used to represent this exchange alongside number lines to support children in understanding how to partition their jumps.

Skill: Add three 1-digit numbers	Year: 2
$7 + 6 + 3 = 16$	When adding three 1-digit numbers, children should be encouraged to look for number bonds to 10 or doubles to add the numbers more efficiently. This supports children in their understanding of commutativity. Manipulatives that highlight number bonds to 10 are effective when adding three 1-digit numbers.

100

Skill: Subtract 1 and 2-digit numbers to 20

Year: 1/2

6

14

14

6

8

14 - 6 = 8

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

14 - 6 = 8

4 2

-2 -4

14 - 6 = 8

4 2

In Year 1, subtracting one-digit numbers that cross 10, is done by counting back, using objects, number tracks and number lines. From Year 2, children should be encouraged to find the number bond to 10 when partitioning the subtracted number. Ten frames, number shapes and number lines are particularly useful for this.

Skill: Subtract 1 and 2-digit numbers to 100

Year: 2/3

$$65 - 28 = 37$$

65	
?	28

Tens	Ones

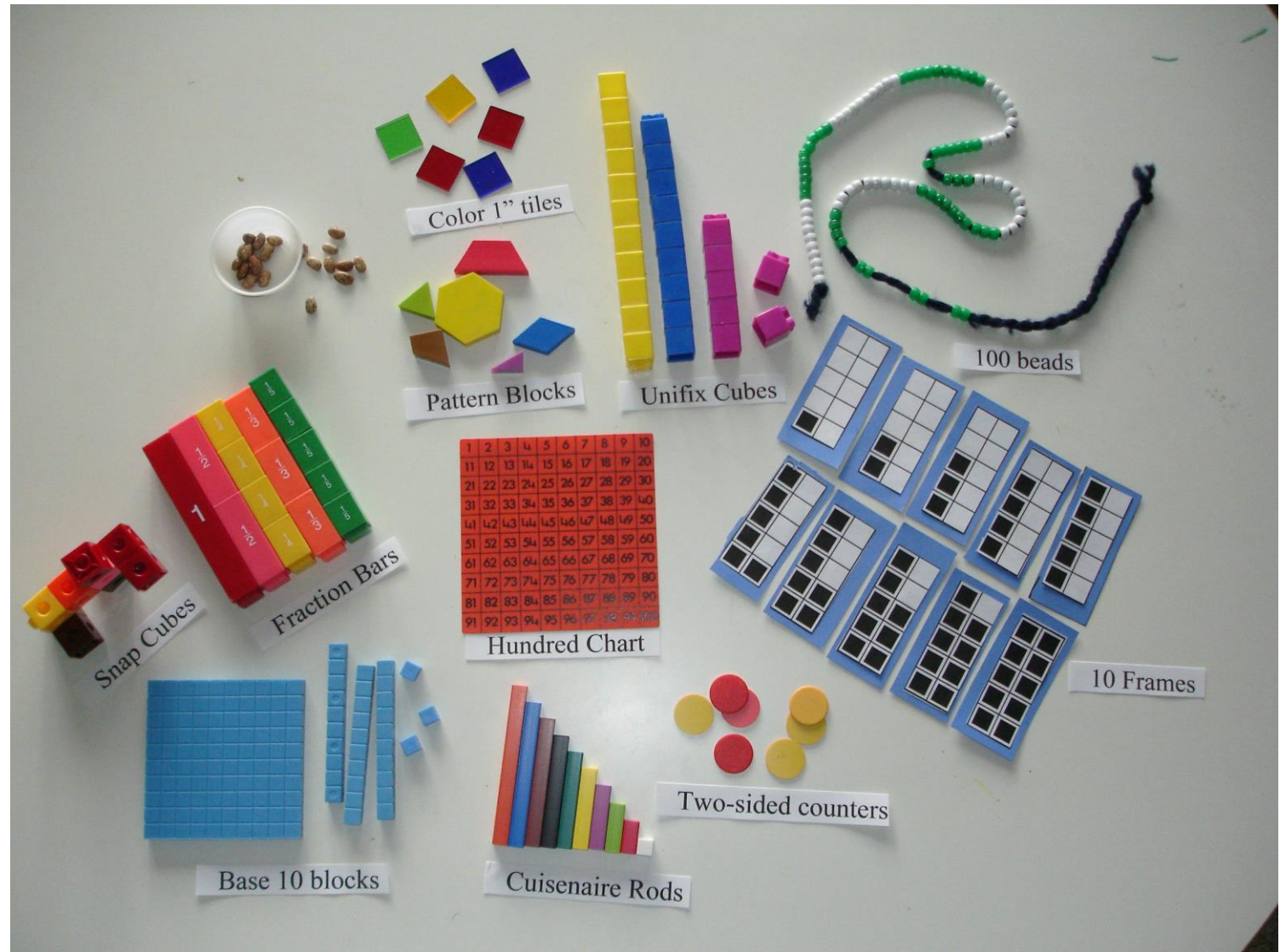
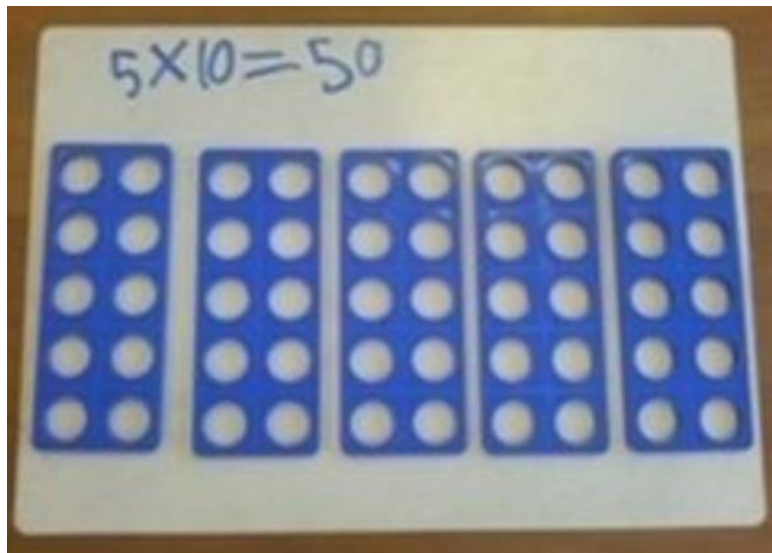
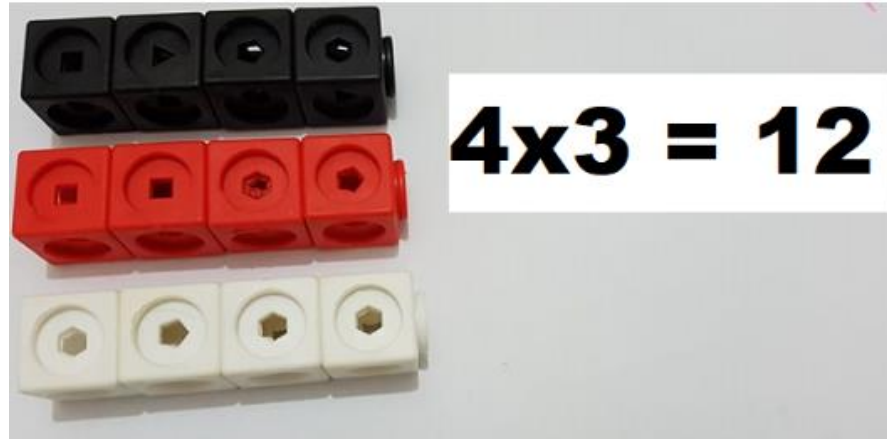
$$\begin{array}{r} 5 \overset{1}{6}5 \\ - 28 \\ \hline 37 \end{array}$$

Tens	Ones

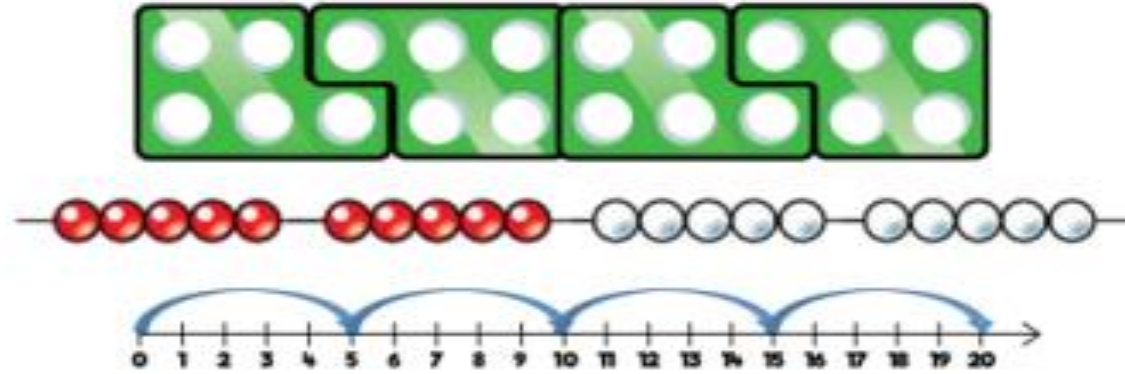
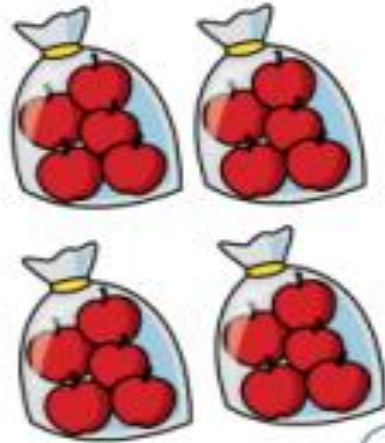
Children can also use a blank number line to count back to find the difference. Encourage them to jump to multiples of 10 to become more efficient.

From Year 3, encourage children to use the formal column method when calculating alongside straws, base 10 or place value counters. As numbers become larger, straws become less efficient.

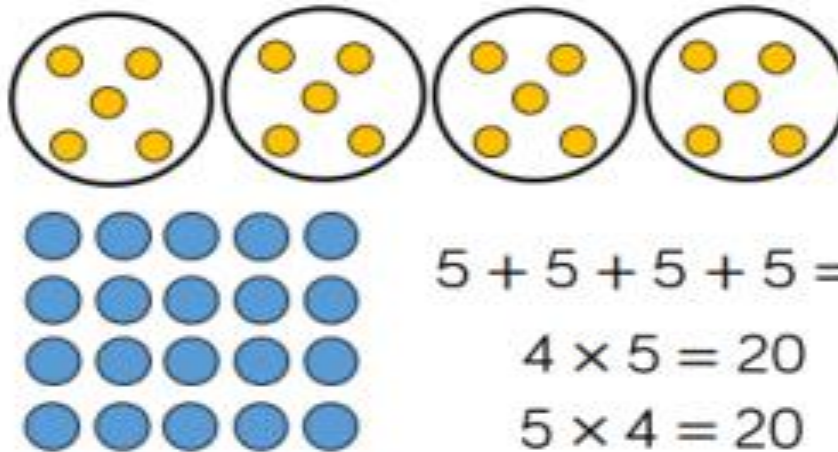
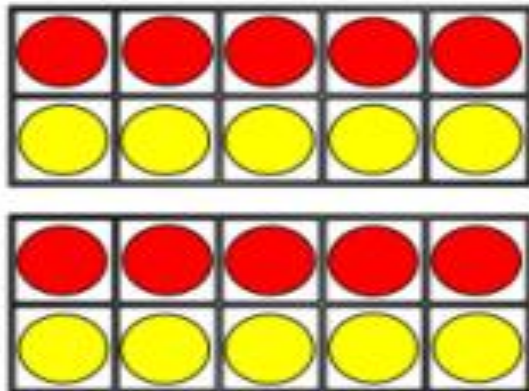
Concrete



Pictorial



One bag holds 5 apples.
How many apples do 4 bags hold?



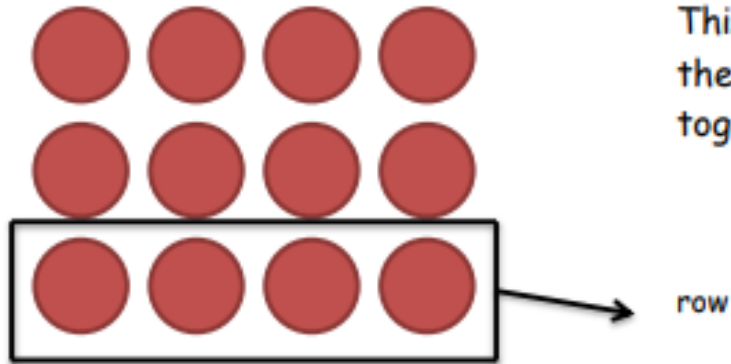
$$5 + 5 + 5 + 5 = 20$$

$$4 \times 5 = 20$$

$$5 \times 4 = 20$$

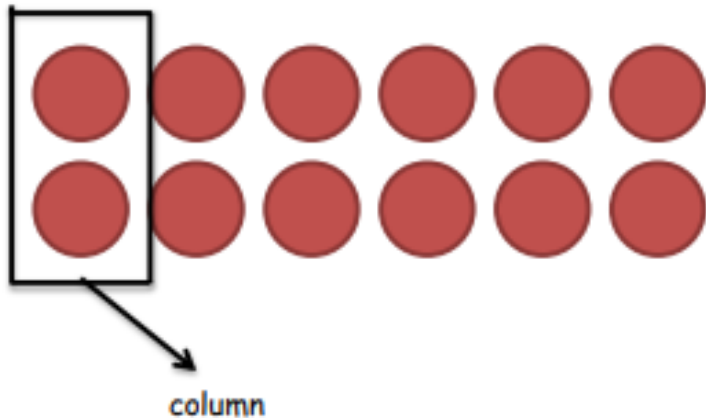
Pictorial - Arrays

Arrays are visual representations to show multiplication. To encourage a wide range of different factors and multiples that belong to numbers, ask them to draw out arrays like the ones below.



This array shows 4 columns and 3 rows, which makes the number sentence 3×4 . When you add all the spots together, you get the answer 12.

$$3 \times 4 = 12$$

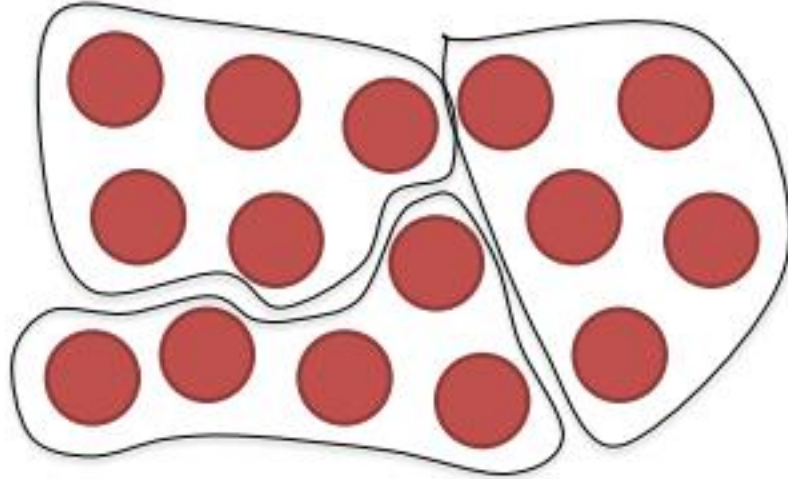


This array also shows 12 spots but the array is shown differently. This time there is 2 columns and 6 rows, which makes the number sentence 6×2 .

$$6 \times 2 = 12$$

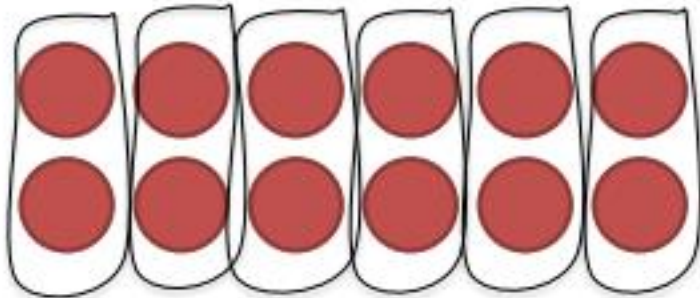
Pictorial - Arrays

Arrays can be used to visually represent division. By drawing spots, the children can then group through circling to find the answer.

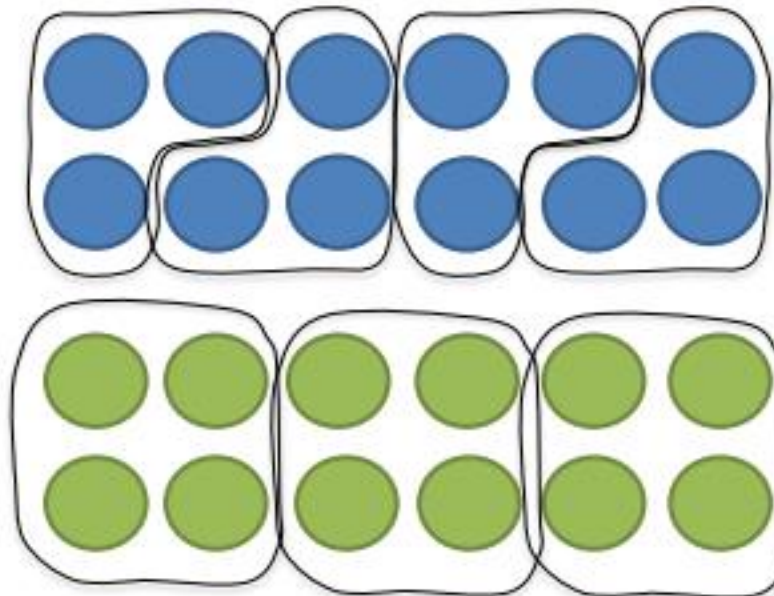


The picture shows 15 spots. If the children were asked to group them into 5s or were given the calculation 15 divided by 5, then the spots make it visually easy to do.

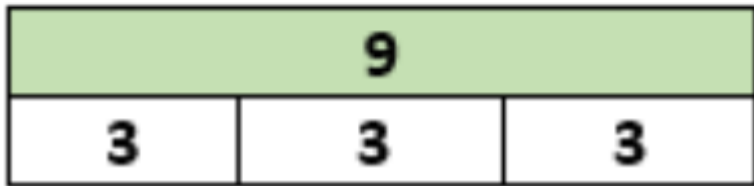
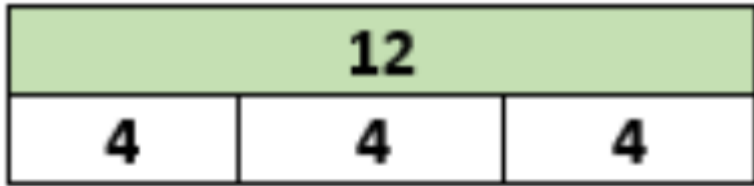
$$15 \text{ divided by } 5 = 3$$



This array can also be used for division as the picture shows. There are 12 spots in total but they can be divided in different ways.

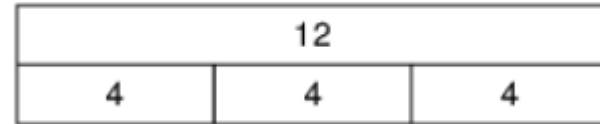
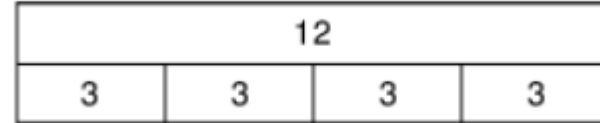


Pictorial – Bar models



2. Rosie has 12 biscuits.

She gives each of her friends 4 biscuits.



Which of these bar models matches the problem? Explain your answer.

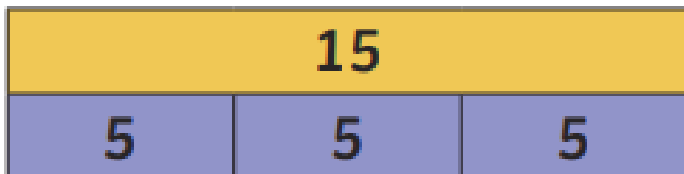
.....

.....

.....



or

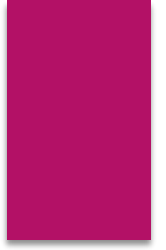


Abstract

15				
3	3	3	3	3

or

15		
5	5	5



$$13 \times 5 = 65$$

$$10 \times 5 = 50$$

$$3 \times 5 = 15$$

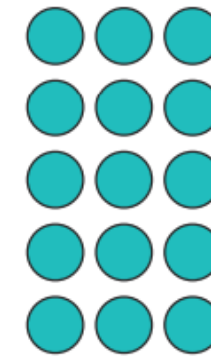
$$50 + 15 = 65$$

Calculation

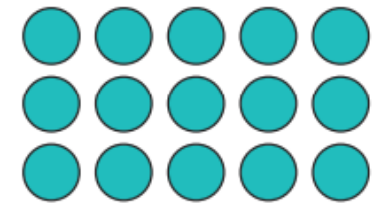
$$3 \times 5 = 15$$

or

$$5 \times 3 = 15$$



or



$$3 \times 5 = 15$$

$$5 \times 3 = 15$$

$$15 \div 3 = 5$$

$$15 \div 5 = 3$$

$$3 + 3 + 3 + 3 + 3 = 15$$

Or

$$5 + 5 + 5 = 15$$

100

[illegible]

Mastering number

First, there were **15** birds. **Then**, **3** birds flew away. **Now**, there are ____ birds.



$$15 - 3 = \boxed{12}$$

____ minus ____ is equal to ____ .

Times tables

- Times tables are key to all areas of Maths.
- Practice makes perfect!

Regular times table quizzes



You have 10 minutes to complete this challenge!

Eleven Club

2 times table knowledge.

Name: _____ Date: _____

1. $2 \times 3 =$	7. $2 \times 5 =$
2. $4 \times 2 =$	8. $9 \times 2 =$
3. $2 \times 1 =$	9. $2 \times 12 =$
4. $2 \times 0 =$	10. $2 \times 8 =$
5. $6 \times 2 =$	11. $11 \times 2 =$
6. $2 \times 10 =$	



You have 10 minutes to complete this challenge!

Twenty Two Club

2 and 5 times table knowledge.

Name: _____ Date: _____

1. $2 \times 5 =$	12. $5 \times 3 =$
2. $12 \times 5 =$	13. $9 \times 5 =$
3. $2 \times 9 =$	14. $0 \times 2 =$
4. $5 \times 0 =$	15. $8 \times 2 =$
5. $3 \times 2 =$	16. $5 \times 7 =$
6. $2 \times 10 =$	17. $5 \times 9 =$
7. $6 \times 5 =$	18. $2 \times 2 =$
8. $11 \times 2 =$	19. $11 \times 5 =$
9. $2 \times 12 =$	20. $1 \times 5 =$
10. $5 \times 8 =$	21. $5 \times 5 =$
11. $9 \times 2 =$	22. $10 \times 5 =$



You have 10 minutes to complete this challenge!

Thirty Three Club

2, 5 and 10 times table knowledge.

Name: _____ Date: _____

1. $5 \times 2 =$	18. $6 \times 5 =$
2. $10 \times 2 =$	19. $4 \times 10 =$
3. $3 \times 10 =$	20. $0 \times 2 =$
4. $12 \times 5 =$	21. $2 \times 3 =$
5. $10 \times 0 =$	22. $10 \times 5 =$
6. $2 \times 4 =$	23. $11 \times 2 =$
7. $4 \times 5 =$	24. $6 \times 10 =$
8. $6 \times 2 =$	25. $7 \times 2 =$
9. $5 \times 10 =$	26. $10 \times 10 =$
10. $5 \times 7 =$	27. $5 \times 3 =$
11. $12 \times 2 =$	28. $12 \times 10 =$
12. $7 \times 10 =$	29. $8 \times 2 =$
13. $5 \times 5 =$	30. $11 \times 10 =$
14. $9 \times 2 =$	31. $8 \times 5 =$
15. $10 \times 8 =$	32. $5 \times 1 =$
16. $9 \times 5 =$	33. $11 \times 5 =$
17. $9 \times 10 =$	



How you can help at home

- Homework will be based around times tables (TTRS)
- Little and often.
- Make it fun!
- Focus on one times table at a time.
- Mix things up.

TTRS

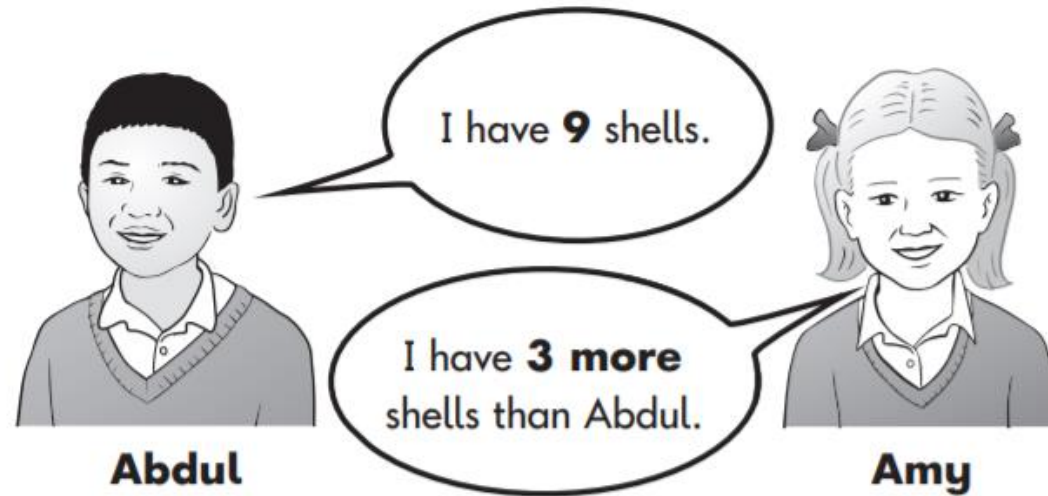


How you can help at home

- Posters
- Songs
- Videos
- Online games - TT Rockstars
- Flash cards - pairs game
- Everyday life
- Chanting

Assessments

- SATs in year 2 are no longer Statutory.
- Formative assessment – ongoing teacher assessment.
- Summative assessment – assessment that takes place termly through set questions or tasks. (NTS assessments)
- Statutory assessments –Phonic Screen assessment will take place in the Summer term for all children in Year 1 and any children in Year 2 who did not previously reach the expected standard.



How many shells does Amy have?

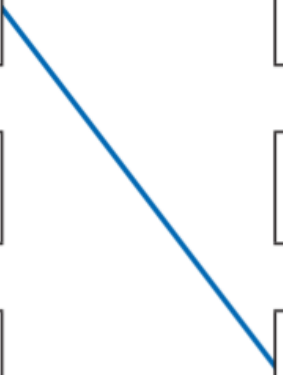
shells

Example – addition

Match the sums that have the same answer.

One is done for you.

$20 + 8$	$30 + 28$
$50 + 8$	$70 + 18$
$80 + 8$	$10 + 18$
$90 + 8$	$50 + 48$



Example – addition

There are **20** balloons.

7 balloons fly away.



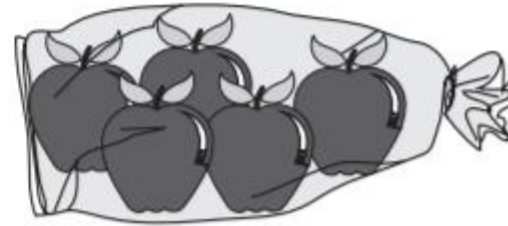
How many balloons are left?

balloons

Example - subtraction

Miss Smith needs **30** apples for her class.

There are **5** apples in each bag.



How many **bags** of apples does Miss Smith need altogether?

bags

Example – multiplication/division

Thankyou!

If you have any questions or concerns, please do come and speak to a member of the Year 2 Team.

Dream Believe Achieve!

