Scheme of Learning

Year 1

#MathsEveryoneCan

White Rose Maths

Contents

Welcome

Welcome to the White Rose Maths' new, more detailed schemes of learning for 2018-19.

We have listened to all the feedback over the last 2 years and as a result of this, we have made some changes to our primary schemes. *They are bigger, bolder and more detailed than before.*

The new schemes still have the *same look and feel* as the old ones, but we have tried to provide more detailed guidance. We have worked with enthusiastic and passionate teachers from up and down the country, who are experts in their particular year group, to bring you additional guidance. *These schemes have been written for teachers, by teachers.*

We all believe that every child can succeed in mathematics. Thank you to everyone who has contributed to the work of White Rose Maths. It is only with your help that we can make a difference.

We hope that you find the new schemes of learning helpful. As always, get in touch if you or your school want support with any aspect of teaching maths.

If you have any feedback on any part of our work, do not hesitate to contact us. Follow us on Twitter and Facebook to keep up-to-date with all our latest announcements.

White Rose Maths Team

#MathsEveryoneCan

White Rose Maths contact details

support@whiterosemaths.com

@WhiteRoseMaths

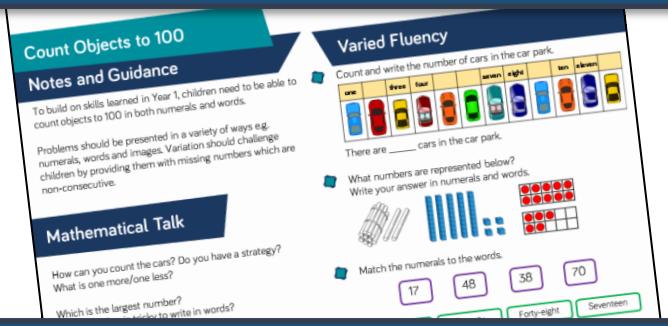
White Rose Maths

What's included?

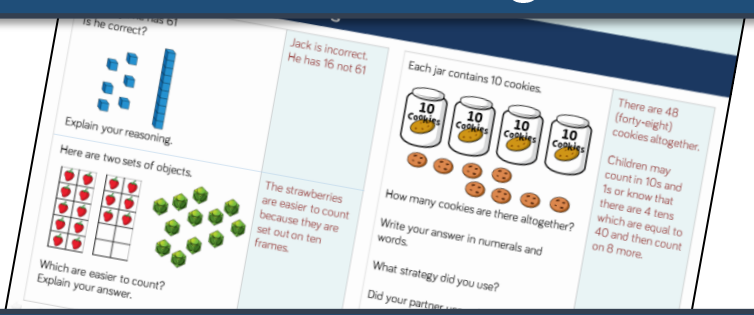
Our schemes include:

- Small steps progression. These show our blocks broken down into smaller steps.
- Small steps guidance. For each small step we provide some brief guidance to help teachers understand the key discussion and teaching points. This guidance has been written for teachers, by teachers.
- A more integrated approach to fluency, reasoning and problem solving.
- Answers to all the problems in our new scheme.
- We have also worked with Diagnostic Questions to provide questions for every single objective of the National Curriculum.

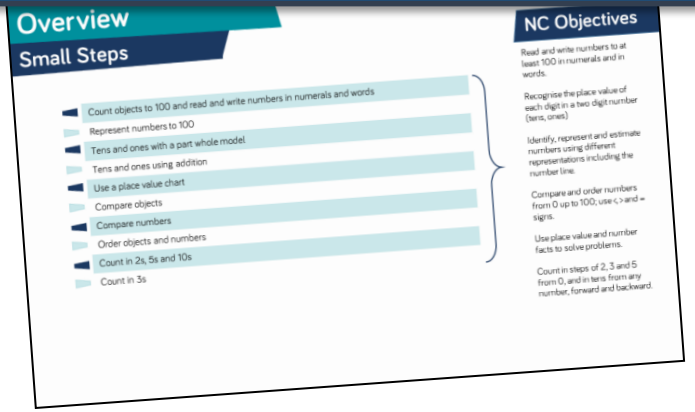
Teaching Notes and Examples



Answers to Reasoning Questions



Small Steps Guidance



Meet the Team

The schemes have been developed by a wide group of passionate and enthusiastic classroom practitioners.

Caroline Hamilton

Beth Smith

Kelsey Brown

Mary-Kate Connolly

James Clegg

Jane Brown

Sam Shutkever

Kate Henshall

Special Thanks

The White Rose Maths team would also like to say a huge thank you to the following people who came from all over the country to contribute their ideas and experience. We could not have done it without you.

Year 2 Team

Chris Gordon
Beth Prottey
Rachel Wademan
Emma Hawkins
Scott Smith
Valda Varadinek-Skelton
Chloe Hall
Charlotte James
Joanne Stuart
Michelle Cornwell

Year 3 Team

Becky Stanley
Nicola Butler
Laura Collis
Richard Miller
Claire Bennett
Chris Conway

Year 4 Team

Terrie Litherland
Susanne White
Hannah Kirkman
Daniel Ballard
Isobel Gabanski
Laura Stubbs

Year 5 Team

Lynne Armstrong
Laura Heath
Clare Bolton
Helen Eddie
Chris Dunn
Rebecca Gascoigne

Year 6 Team

Lindsay Coates
Kayleigh Parkes
Shahir Khan
Sarah Howlett

How to use the small steps

We were regularly asked how it is possible to spend so long on particular blocks of content and National Curriculum objectives.

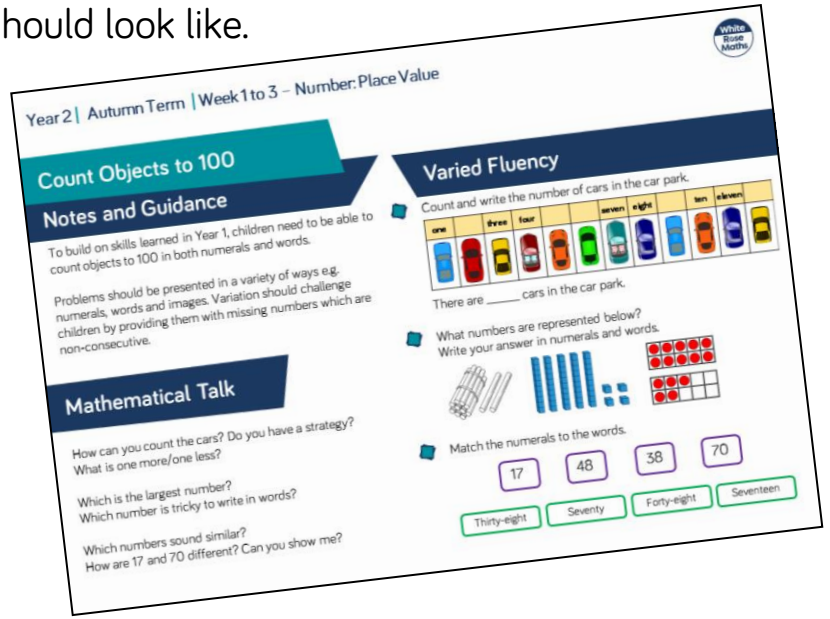
We know that breaking the curriculum down into small manageable steps should help children understand concepts better. Too often, we have noticed that teachers will try and cover too many concepts at once and this can lead to cognitive overload. In our opinion, it is better to follow a small steps approach.

As a result, for each block of content we have provided a "Small Step" breakdown. We recommend that the steps are taught separately and would encourage teachers to spend more time on particular steps if they feel it is necessary. Flexibility has been built into the scheme to allow this to happen.

Teaching notes

Alongside the small steps breakdown, we have provided teachers with some brief notes and guidance to help enhance their teaching of the topic. The "Mathematical Talk" section provides questions to encourage mathematical thinking and reasoning, to dig deeper into concepts.

We have also continued to provide guidance on what varied fluency, reasoning and problem solving should look like.


Year 2 | Autumn Term | Week 1 to 3 – Number: Place Value

Count Objects to 100

Notes and Guidance

To build on skills learned in Year 1, children need to be able to count objects to 100 in both numerals and words.

Problems should be presented in a variety of ways e.g. numerals, words and images. Variation should challenge children by providing them with missing numbers which are non-consecutive.

Mathematical Talk

How can you count the cars? Do you have a strategy? What is one more/one less?

Which is the largest number? Which number is tricky to write in words?

Which numbers sound similar? How are 17 and 70 different? Can you show me?

Varied Fluency

Count and write the number of cars in the car park.

There are ____ cars in the car park.

What numbers are represented below? Write your answer in numerals and words.

Match the numerals to the words.

17 48 38 70

Thirty-eight Seventy Forty-eight Seventeen

Assessments

Alongside these overviews, our aim is to provide an assessment for each term's plan. Each assessment will be made up of two parts:

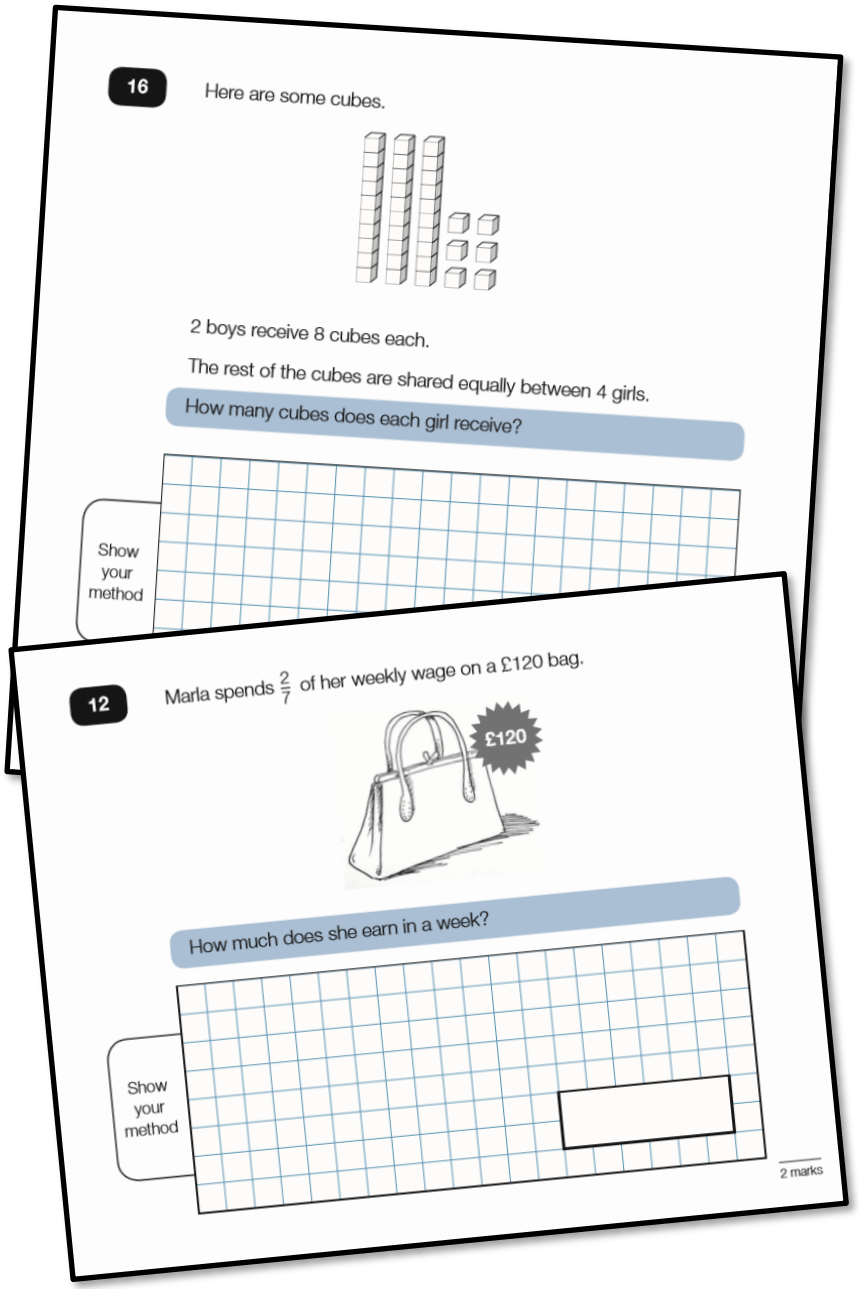
Part 1: Fluency based arithmetic practice

Part 2: Reasoning and problem solving based questions

Teachers can use these assessments to determine gaps in children's knowledge and use them to plan support and intervention strategies.

The assessments have been designed with new KS1 and KS2 SATs in mind.

For each assessment we provide a summary spread sheet so that schools can analyse their own data. We hope to develop a system to allow schools to make comparisons against other schools. Keep a look out for information next year.



Teaching for Mastery

These overviews are designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- have number at their heart. A large proportion of time is spent reinforcing number to build competency
- ensure teachers stay in the required key stage and support the ideal of depth before breadth
- ensure students have the opportunity to stay together as they work through the schemes as a whole group
- provide plenty of opportunities to build reasoning and problem solving elements into the curriculum

For more guidance on teaching for mastery, visit the NCETM website:

https://www.ncetm.org.uk/resources/47230

Concrete - Pictorial - Abstract

We believe that all children, when introduced to a new concept, should have the opportunity to build competency by taking this approach.

Concrete – children should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

Pictorial – alongside this children should use pictorial representations. These representations can then be used to help reason and solve problems.

Abstract – both concrete and pictorial representations should support children's understanding of abstract methods.

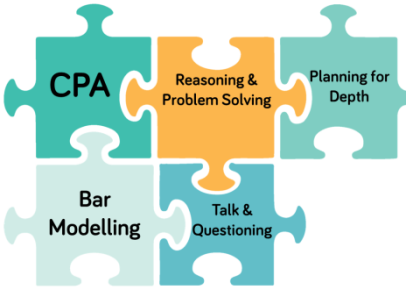
Need some CPD to develop this approach? Visit www.whiterosemaths.com for find a course right for you.

Training

White Rose Maths offer a plethora of training courses to help you embed teaching for mastery at your school.

Our popular JIGSAW package consists of five key elements:

- CPA
- Bar Modelling
- Mathematical Talk & Questioning
- Planning for Depth
- Reasoning & Problem Solving



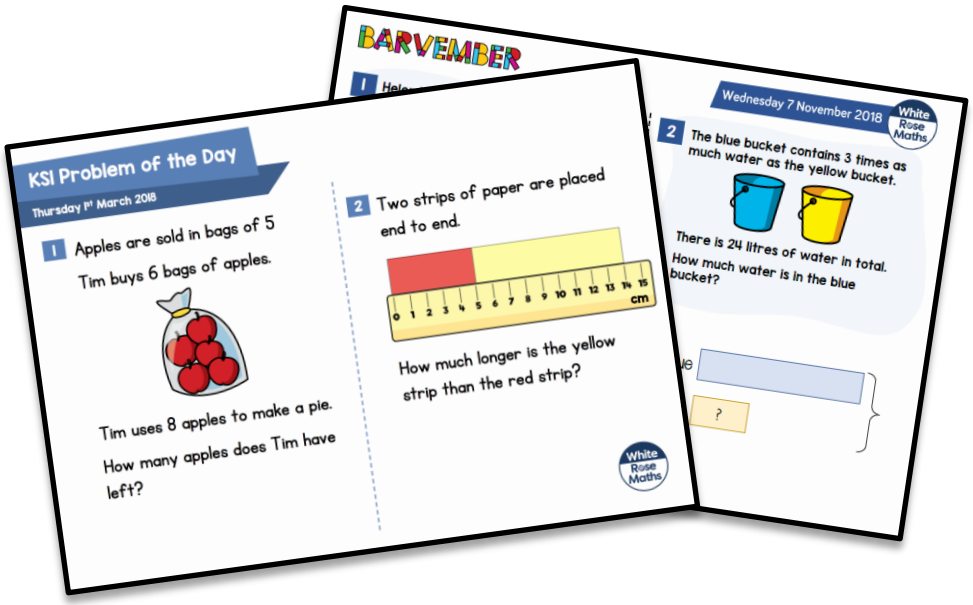
For more information and to book visit our website www.whiterosemaths.com or email us directly at support@whiterosemaths.com

Additional Materials

In addition to our schemes and assessments we have a range of other materials that you may find useful.

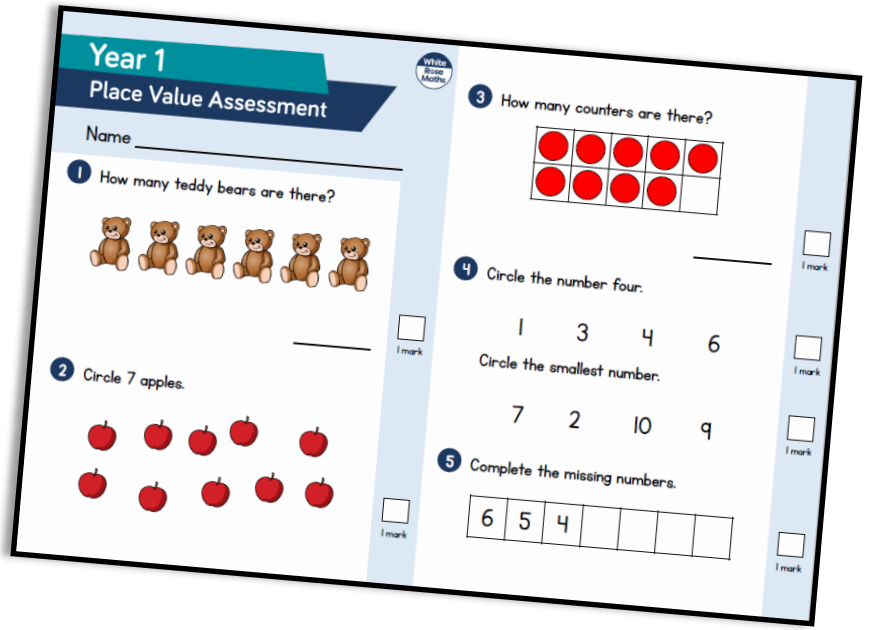
KS1 and KS2 Problem Solving Questions

For the last three years, we have provided a range of KS1 and KS2 problem solving questions in the run up to SATs. There are over 200 questions on a variety of different topics and year groups. You will also find more questions from our Barvember campaign.



End of Block Assessments

New for 2018 we are providing short end of block assessments for each year group. The assessments help identify any gaps in learning earlier and check that children have grasped concepts at an appropriate level of depth.



FAQs

If we spend so much time on number work, how can we cover the rest of the curriculum?

Children who have an excellent grasp of number make better mathematicians. Spending longer on mastering key topics will build a child's confidence and help secure understanding. This should mean that less time will need to be spent on other topics.

In addition, schools that have been using these schemes already have used other subjects and topic time to teach and consolidate other areas of the mathematics curriculum.

Should I teach one small step per lesson?

Each small step should be seen as a separate concept that needs teaching. You may find that you need to spend more time on particular concepts. Flexibility has been built into the curriculum model to allow this to happen. This may involve spending more or less than one lesson on a small step, depending on your class' understanding.

How do I use the fluency, reasoning and problem solving questions?

The questions are designed to be used by the teacher to help them understand the key teaching points that need to be covered. They should be used as inspiration and ideas to help teachers plan carefully structured lessons.

How do I reinforce what children already know if I don't teach a concept again?

The scheme has been designed to give sufficient time for teachers to explore concepts in depth, however we also interleave prior content in new concepts. E.g. when children look at measurement we recommend that there are lots of questions that practice the four operations and fractions. This helps children make links between topics and understand them more deeply. We also recommend that schools look to reinforce number fluency through mental and oral starters or in additional maths time during the day.

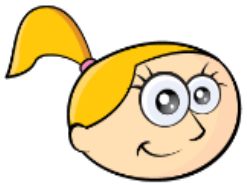
Meet the Characters

Children love to learn with characters and our team within the scheme will be sure to get them talking and reasoning about mathematical concepts and ideas. Who's your favourite?


Teddy


Rosie


Mo


Eva


Alex


Jack


Whitney


Amir


Dora


Tommy


Dexter


Ron


Annie

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)				Geometry: Shape	Number: Place Value (within 20)		Consolidation
Spring	Number: Addition and Subtraction (within 20)				Number: Place Value (within 50) (Multiples of 2, 5 and 10 included)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Number: Multiplication and Division (Reinforce multiples of 2, 5 and 10 to be included)			Number: Fractions		Geometry: Position and Direction	Number: Place Value (within 100)		Measurement: Money	Measurement: Time		Consolidation

White Rose Maths

Spring - Block 1

Addition & Subtraction

Overview

Small Steps

1. Add by counting on
2. Find & make number bonds
3. Add by making 10
4. Subtraction – Not crossing 10
5. Subtraction – Crossing 10 (1)
6. Subtraction – Crossing 10 (2)
7. Related facts
8. Compare number sentences

NC Objectives

Represent and use number bonds and related subtraction facts within 20

Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs.

Add and subtract one-digit and two-digit numbers to 20, including zero.

Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$

Add by Counting On

Notes and Guidance

Children explore addition by counting on from a given number. They begin to understand that addition is commutative and that it is more efficient to start from the largest number.
It is important that children see that they are not just adding two separate numbers or items, they are adding to what they already have.
Ensure children do not include their start number when counting on.

Mathematical Talk

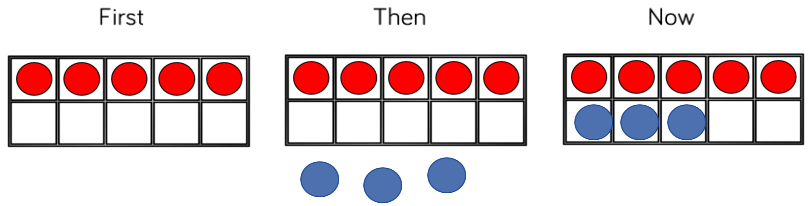
What number did you start with? Then what happened? Now what do I have?

What does each number represent? What do the counters represent?

How can I represent counting on using practical equipment?
How can I represent counting on using a bar model or a number line?

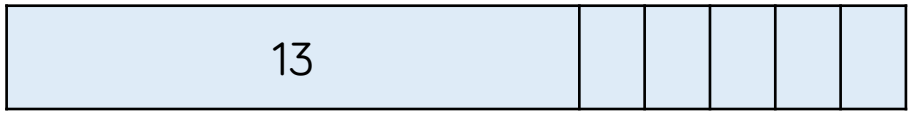
Varied Fluency

Use ten frames to complete the number story.

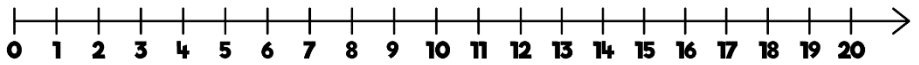


First there were ___ cars in the car park.
Then ___ more cars parked in the car park.
Now there are ___ cars in the car park.

Eva has 13 prize tokens.
She wins 5 more.
How many prize tokens does Eva have now?



Mo starts at 9 and counts on 6 $9 + 6 = \square$
Show his calculation on the number line.



Add by Counting On

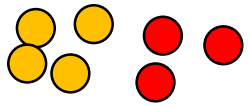
Reasoning and Problem Solving

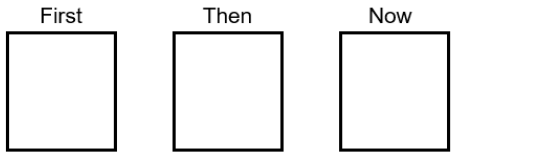
Use the diagram and counters to tell your own number story for these calculations:

$0 + 12 = \_\_\_$

$7 + 0 = \_\_\_$

$14 + \_\_\_ = 17$





Children can come up with a range of contexts where they have an amount that is increasing. Using 'First, then and now' they describe it.

Mo and Jack are working out $11 + 7$

Mo says,

11, 12, 13, 14, 15, 16, 17

Jack says,

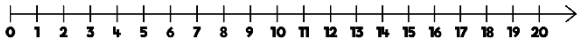
12, 13, 14, 15, 16, 17, 18

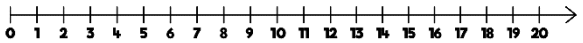
Use a number line to show who is correct.

Jack is correct as he has counted on 7 steps from 11
Mo has incorrectly included 11 when counting.

Ron starts at 9 and adds on 5
Alex starts at 5 and adds on 9
Show their calculations on the number lines.
What do you notice? Does this always happen?

Which method do you like best? Why?





Both children end on 14
This is because $9 + 5$ is equivalent to $5 + 9$

The children can explore their own calculations to understand that addition is always commutative.
They see that Ron's method is quicker because there is less to count on.

Find & Make Number Bonds

Notes and Guidance

Children see that working systematically helps them to find all the possible number bonds to 20
They will use their knowledge of number bonds to 10 to find number bonds to 20
Using examples such as, 7 + 3, 17 + 3 or 7 + 13 encourages children to see the link between bonds to 10 and bonds to 20 and reinforces their understanding of place value.

Mathematical Talk

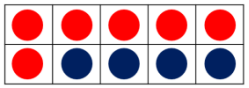
What strategy could you use to make sure you find all the number bonds?

What number bond can we see? How does this help us find the number bond to 20?

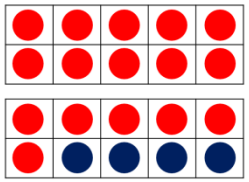
How does knowing your number bonds to 10 help you to work out your number bonds to 20?

Varied Fluency

What number bond is represented in the pictures?

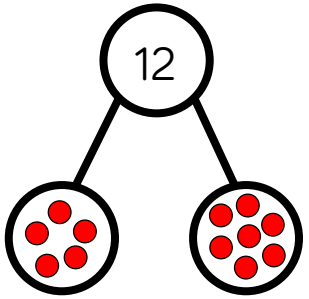


There are ___ red counters.
There are ___ blue counters.
Altogether there are ___ counters.
___ + ___ = ___ ___ + ___ = ___



There are ___ red counters.
There are ___ blue counters.
Altogether there are ___ counters.
___ + ___ = ___
___ + ___ = ___

Continue the pattern to find all the number bonds to 12
How do you know you have found them all?



12 = 12 + 0
12 = 11 + ___
12 = 10 + ___

Find & Make Number Bonds

Reasoning and Problem Solving

Use equipment to represent each of the calculations below.

What is the same?
What is different?

$$7 + 3 = 10$$

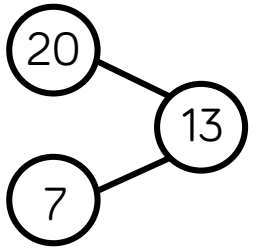
$$17 + 3 = 20$$

$$20 = 7 + 13$$

Explain your thinking.

Children may notice that the = is in a different place.
They might notice that the number of ones remains the same and that a ten has been added to create a number bond to 20
Mathematical equipment such as ten frames or Base 10 will make this clear.

Jack represents a number bond to 20 in the part whole model.



Can you spot his mistake?

Possible response: Jack has put 20 as a part but it should be a whole.

True or false?

There are double the amount of numbers bonds to 20 than there are number bonds to 10

Prove it – can you use a systematic approach?

False – there are 11 number bonds to 10 and 21 number bonds to 20 Children can show this in various ways.

Add by Making 10

Notes and Guidance

Children add numbers within 20 using their knowledge of number bonds.
It is important that children work practically using ten frames and/or number lines to help them see how number bonds to 10 can help them calculate.
They will move towards using this as a mental strategy.

Mathematical Talk

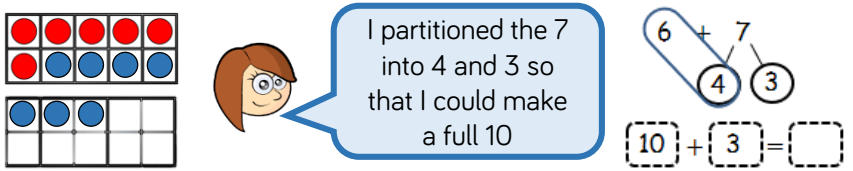
How can you partition a number and use your number bonds to 10 to help you?

How does using the counters help you to see this strategy?

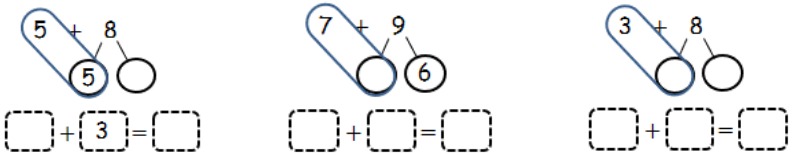
How does using a number line help you to see this strategy?

Varied Fluency

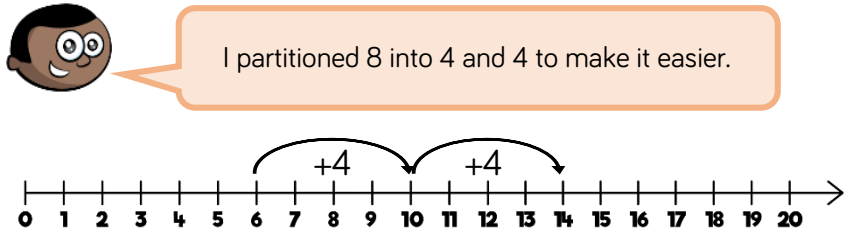
Rosie has used the 10 frames to calculate 6 + 7



Use Rosie's method to complete:



Mo has used a number line to calculate 6 + 8



Use Mo's method to calculate:

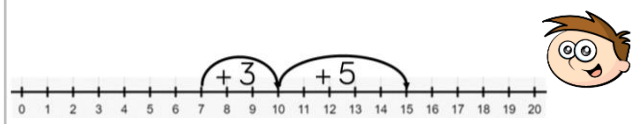
5 + 8 = ☐ 9 + 4 = ☐ 6 + 8 = ☐

Add by Making 10

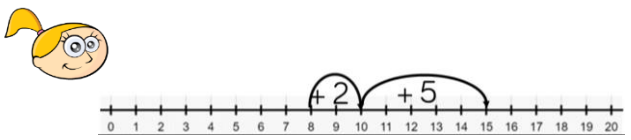
Reasoning and Problem Solving

Teddy and Eva are adding together 7 and 8 using a number line.

Teddy shows it this way:



Eva shows it this way:



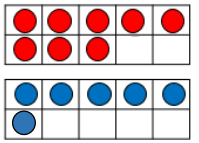
Who is correct?
Explain your answer.

They are both correct because addition is commutative and the answer to both calculations is 15

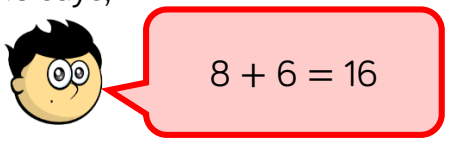
Teddy has started with 7 and partitioned the 8 into 3 and 5 to make 10

Eva has started with 8 and partitioned the 7 into 2 and 5 to make 10

Dexter uses ten frames to calculate eight plus six.



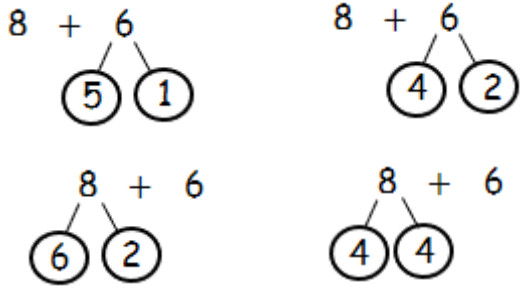
He says,



Do you agree?
Explain why.

Dexter is wrong because the answer should be 14. He should have filled the first ten frame before starting a second one.

Annie is calculating 8 + 6
Which of these methods is most helpful?
Why?



Partitioning the 6 into 4 and 2 is helpful as 8 and 2 make 10

Partitioning the 8 into 4 and 4 is helpful as 6 and 4 make 10

Subtraction – Not Crossing 10

Notes and Guidance

Children build on the language of subtraction, recognising and using the subtraction symbol within 20

The use of zero is important so children know that when nothing is taken away, the start number remains the same or when the whole group is taken away, there will be nothing left.

They will also use the part-whole model alongside practical equipment to reinforce number bonds within 20

Mathematical Talk

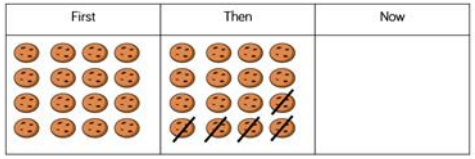
How many objects were there at first? Then what happened to the objects? How many objects are there now?

If Mo ate nothing, what number would we use to represent this? How do we write this as a calculation? What does the zero represent in this calculation?

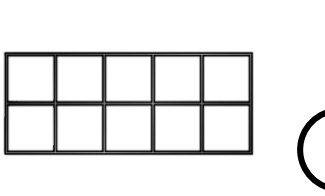
If Mo ate all of the biscuits, what number would we be left with? How do we write this as a calculation? What does the zero represent in this calculation?

Varied Fluency

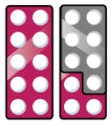
There are 16 biscuits on a plate. Mo eats 5 of them.
Complete the sentences.
First there were ___ biscuits.
Then ___ were eaten.
Now there are ___ biscuits.
16 – 5 = ___



First there were 9 sheep. Then they all ran away.
How many sheep are left?
Use ten frames and counters to represent the sheep.



Use the number pieces and the number line to complete the number sentences.



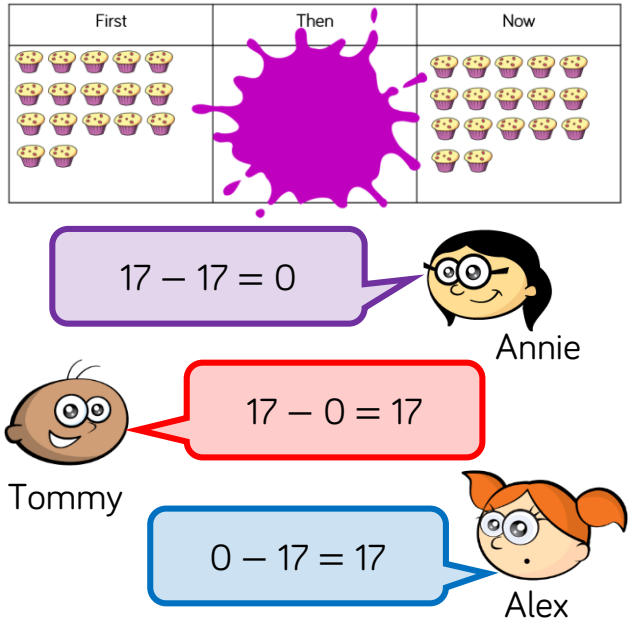
20 – 7 = ___

Use this method to calculate:
20 – 8
18 – 6
19 – 4

Subtraction – Not Crossing 10

Reasoning and Problem Solving

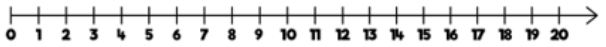
Annie, Tommy and Alex are working out which calculation is represented below.



Can you work out who is correct?
Explain why.

Possible response:
Tommy is correct because first there were 17 cakes and now there are still 17 cakes so zero cakes were eaten.

How many ways can you complete this number sentence?
Use the number line to help you.



$\square - \square = 11$

20 – 9 = 11
19 – 8 = 11
18 – 7 = 11
17 – 6 = 11
16 – 5 = 11 etc.

Subtraction – Crossing 10 (1)

Notes and Guidance

For the first time, children will be introduced to subtraction where they have to cross ten. This small step focuses on the strategy of partitioning to make ten.

Children should represent this using concrete manipulatives or pictorially to begin with. Ten frames and number lines are particularly useful to model the structure of this strategy.

Children will move towards using this as a mental strategy.

Mathematical Talk

How can you partition a number to help you subtract?

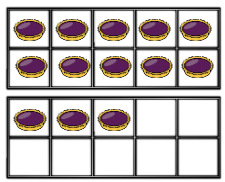
How does using the counters help you to see this strategy?

How does using a number line help you to see this strategy?

Can you think of another way to represent this problem?

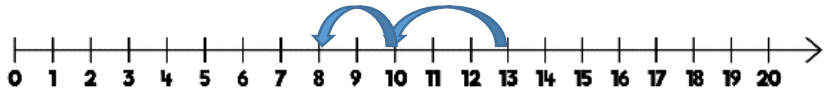
Varied Fluency

First there were 13 jam tarts

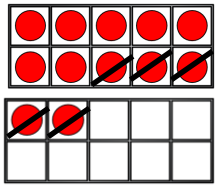


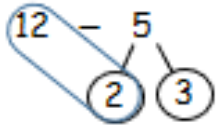
Then 5 were eaten

Now there are 8 jam tarts.



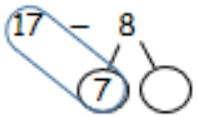
Rosie has used the ten frames to calculate 12 – 5



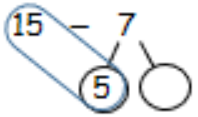


10 – 3 = 7

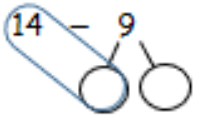
Use her method to complete:



10 – ☐ = ☐



☐ – ☐ = ☐



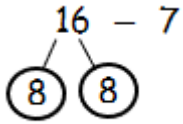
☐ – ☐ = ☐

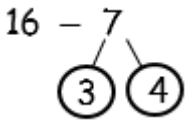
Subtraction – Crossing 10 (1)

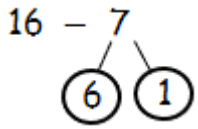
Reasoning and Problem Solving

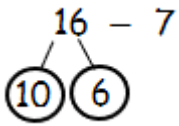
Rosie is calculating 16 – 7

Which of these methods is most helpful? Why?









Could you find a way to partition 16 to help you subtract 7?

Partitioning the 7 into 6 and 1 is useful as Rosie can subtract the 6 to make 10 then subtract the 1

If you partition 16 into 7 and 9, you can subtract 7

Teddy works out 15 – 6
This is Teddy's working out:

15 – 5 = 10 – 1 = 9

Why is Teddy's working out wrong?

Teddy has used the = sign incorrectly.
10 – 1 is not equal to 15 – 5
He should have written:
15 – 5 = 10
10 – 1 = 9

Use <, > or = to make the statements correct.

I can do this without working out any answers.

17 – 5	◯	12 – 5
14 – 4	◯	18 – 8
11 – 7	◯	11 – 4

Is Whitney correct? Explain how you know.

17 – 5 > 12 – 5

14 – 4 = 18 – 8

11 – 7 < 11 – 4

Subtraction – Crossing 10 (2)

Notes and Guidance

Children subtract numbers, within 20, crossing the 10. Children begin to understand the different structures of subtraction (taking away, partitioning, difference).

They use concrete manipulatives and pictorial methods to support their understanding.

One of the most difficult concepts for children is finding the difference where they subtract to calculate how many more.

Mathematical Talk

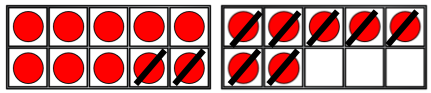
How do the counters and bar models help you to subtract?

Which method would you use to show your thinking and why?

Did you count forwards or backwards? Why?

Varied Fluency

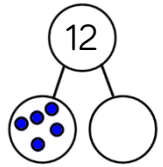
- Complete the number sentences to describe what happens to the sweets.



First there were ___ sweets.
Then ___ sweets were eaten.
Now there are ___ sweets.

□ – □ = □

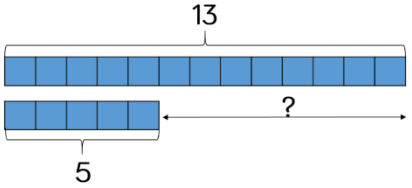
- There are 12 cars in the car park.
5 of them are blue.
How many are red?



□ – □ = □

___ of the cars are red.

- Adam has 13 playing cards.
Oliver has 5 playing cards.
How many more cards does Adam have?



□ – □ = □

Subtraction – Crossing 10 (2)

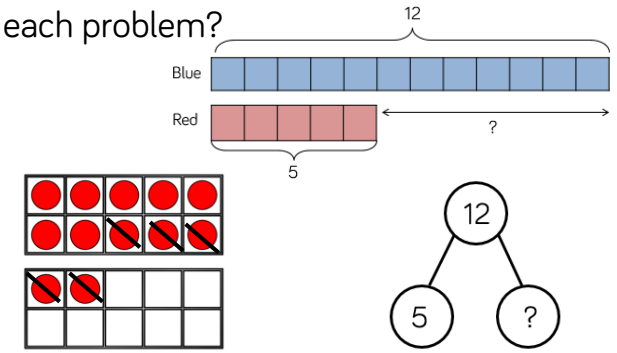
Reasoning and Problem Solving

A Max has 12 balloons.
5 of the balloons burst.
How many are left?

B Max has 12 balloons.
5 of the balloons are red.
There rest are blue.
How many blue balloons does Max have?

C Max has 12 blue balloons and 5 red balloons.
How many more blue balloons than red balloons does he have?

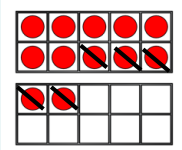
Which method would you use to solve each problem?



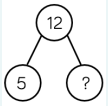
Ask the children to justify which method they would use and why.

Possible answers:

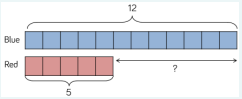
A Take away



B Partitioning



C Difference



Amir has 16 apples. Ron has none.
Amir gives Ron 9 apples.
Who has the most apples now?
Explain how you know.

Ron because he has 9 and Amir only has 7 left.
16 – 9 = 7

Look at the following objects.

Teddy works out these calculations.

15 – 4 = ____
15 – 11 = ____
11 – 4 = ____

What question could he have asked each time?

15 – 4 = 11 (Teddy has 15 bears. He eats 4. How many are left?)
15 – 11 = 4 (11 are yellow how many are purple?)
11 – 4 = 7 (How many more yellow bears are there?)

Related Facts

Notes and Guidance

Children explore addition and subtraction fact families for numbers within 20. They should work concretely and pictorially to find links between the addition and subtraction sentences.
They should recognize that addition and subtraction are inverse operations.
Children should begin to understand that addition is commutative but subtraction is not.

Mathematical Talk

What's the same and what's different?

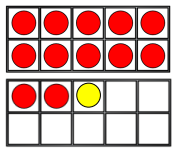
If we know 12 + 1 = 13, what else do we know?

Can you see any patterns?

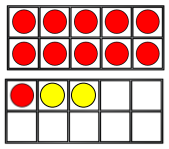
If we know that 15 – 3 = 12, why can't we say 3 – 15 = 12?

Varied Fluency

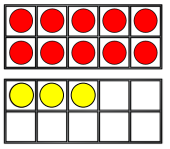
Complete the addition sentences.



12 + 1 = 13



11 + ___ = 13



__ + __ = __

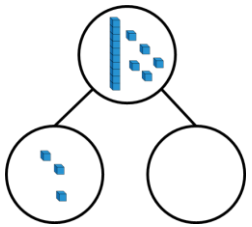
Can you write a subtraction sentence for each?

13 – 1 = 12

13 – ___ = ___

__ – __ = ___

Complete:



15 – ___ = 3
15 – 3 = ___
3 + ___ = 15
___ + 3 = 15

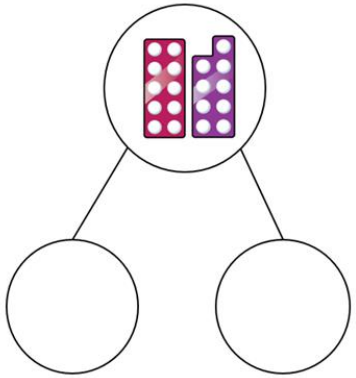
Complete and write addition and subtraction sentences for each bar model.

Can you use the numbers 8, 7 and 15 to make a bar model?
Can you write addition and subtraction sentences for this bar model?

Related Facts

Reasoning and Problem Solving

Use the cards to write as many addition and subtraction sentences as you can.

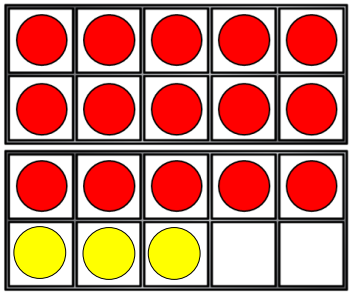


nine	add
ten	subtract
nineteen	is equal to

Children can use the words to create sentences

Possible answers:
Nine add ten is equal to nineteen.
Nine is equal to nineteen subtract ten.

Circle the addition and subtraction number sentences that match the ten frames.



$15 + 3 = 18$	$15 - 3 = 18$
$3 + 18 = 15$	$18 - 15 = 3$
$18 + 3 = 15$	$18 - 3 = 15$
$18 = 3 + 15$	$15 - 18 = 3$

$15 + 3 = 18$
$18 - 15 = 3$
$18 - 3 = 15$
$18 = 3 + 15$

Compare Number Sentences

Notes and Guidance

Children compare number sentences within 20 using inequality symbols.

Children may still need to use concrete manipulatives or draw images to help them compare calculations.
They should be encouraged to look at whether it is always necessary to have to work out the answers to calculations in order to compare them.

Mathematical Talk

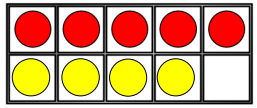
What do each of the symbols mean?

Do you always have to work out the answers to be able to compare calculations? Why?

Why might Tommy put 8 into the example below?
e.g. 7 + 1 = ___ – 2

Varied Fluency

Which card completes the number sentence?

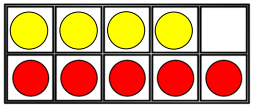


5 + 4

is more than

is less than

is equal to



4 + 5

Use <, > or = to compare the number sentences.

3 + 8 ◯ 8 + 3

18 – 5 ◯ 18

12 + 4 ◯ 12 – 4

Choose the correct digit card to make the number sentences correct.

13 – 5 < 13 – ___
16 – 4 = ___ + 4
9 + ___ > 9 + 1

Compare Number Sentences

Reasoning and Problem Solving

Alex

Any number less than 11 would make this correct.

$7 + 11 < 7 + \_\_$

Do you agree with Alex?

Explain why.

Alex is incorrect. She needs to use any number greater than 11

Whitney has 16 sweets and eats 7 of them.

Mo has 17 sweets and eats 8 of them.

Who has more sweets left?

Explain how you know.

Mo and Whitney have the same. 16 – 7 is equal to 17 – 8

Dexter is working out which symbol to use to compare the number sentences.

$14 - 5 \bigcirc 14 + 5$

The missing symbol must be = because all of the numbers are the same.

Do you agree with Dexter?
Explain why.

Dexter is incorrect because when you take 5 away from 14 the answer will be smaller than when you add 5 to 14 so the correct symbol should be <