

Guidance

Year 2



The **White Rose Education** Fluency Bee programme

What is Fluency Bee?

Fluency Bee is a structured teaching programme designed to give children confidence with numbers through varied and frequent practice. It is an easy way to build number sense and develop a range of core skills in maths.

The key to mathematical fluency

The best way to develop maths fluency is frequent practice. Fluency Bee consists of a daily 15-minute lesson separate from the main maths lesson. Fully animated PowerPoint slides bring core skills to life, with teaching notes that emphasise key learning points and highlight important connections.

How Fluency Bee can work for you

Fluency Bee can be used flexibly depending on the needs of your children. It is suitable for use with the whole class or small groups of targeted children to build confidence with number.

Fun and engaging

Fluency Bee provides a hands-on and practical approach to number sense. There are lots of games and activities embedded in the teaching slides. Frequent, fun and varied practice helps core skills become embedded.

Concrete – pictorial – abstract (CPA)

The programme uses a CPA approach throughout to develop a secure understanding of mathematical concepts. Concrete manipulatives and pictorial representations are used to support children to make links, build visual images and make sense of abstract calculations.

Mathematical talk and reasoning



Frequent opportunities for mathematical talk are provided. Familiar characters encourage children to explore common misconceptions and explain their reasoning.

Year 2 overview



Stage 1							Stage 2		
Block 1 6 and 7	Block 2 8 and 9	Block 3 10	Block 4 Comparison to 10	Block 5 Addition and subtraction	Block 6 Ten and a bit	Block 7 Comparison to 20	Block 1 1 more (within 20)	Block 2 1 less (within 20)	Block 3 Make connections
Stage 2					Stage 3				
Block 4 Odd and even	Block 5 Doubles to 20	Block 6 Near doubles	Block 7 Add 2	Block 8 Subtract 2	Block 1 Add through 10	Block 2 Subtract through 10	Block 3 Bonds to 20		
Stage 4		Stage 5							
Block 1 How many?	Block 2 Comparison to 100	Block 1 Introduction to multiplication and division	Block 2 The 2 times-table	Block 3 The 10 times-table	Block 4 The 5 times-table				

The programme is divided into 5 stages. Each stage consists of blocks which are divided into small steps. Wider blocks have more steps.

The programme is not tied to set term dates or weeks. It is ready to pick up and start at any point throughout the year to meet the needs of your children.

If you feel that your children need to spend longer than one lesson on a step, that is fine, just continue onto the next step when they are ready.

Stage 1 explores the composition of numbers to 20 and the related addition and subtraction fact families.

Stage 2 looks at number facts to 20, securing and building on the number facts to 10 explored in Year 1. Links between related facts such as $5 + 2 = 7$ and $15 + 2 = 17$ are made explicit.

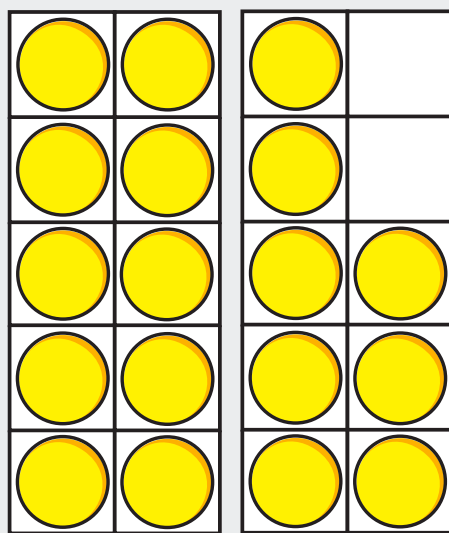
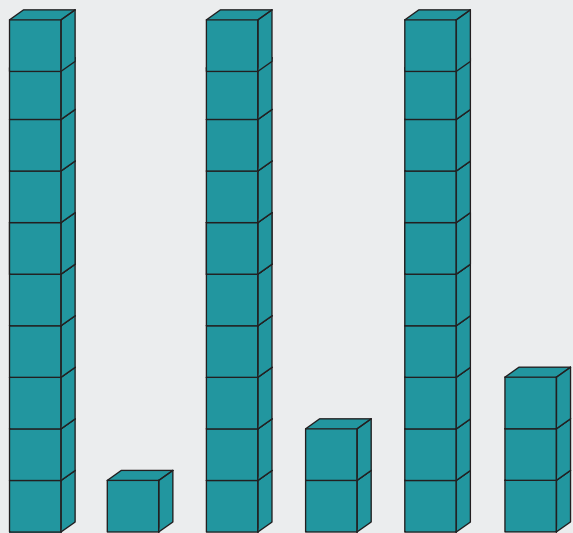
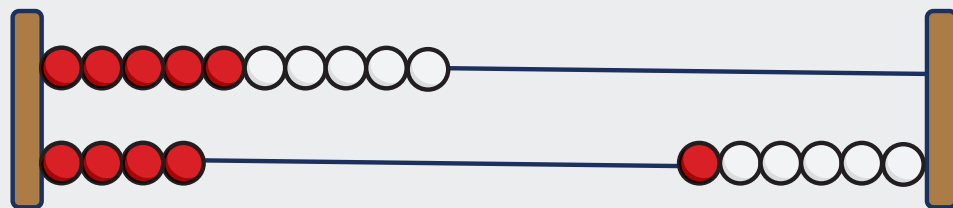
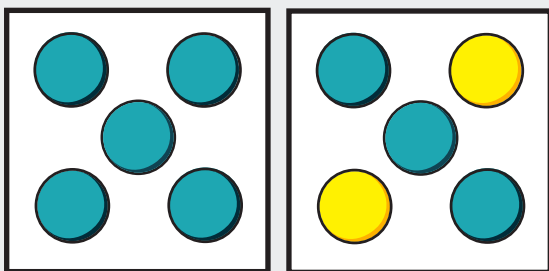
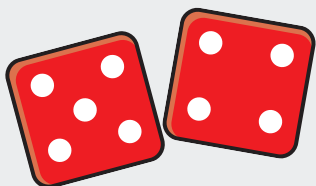
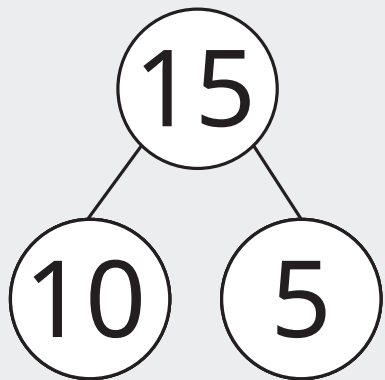
Stage 3 focuses on adding and subtracting through 10.

Stage 4 builds an understanding of the structure of numbers to 100 which will support them to consolidate and apply related facts when calculating with larger numbers in year 3.

Stage 5 looks at multiplication and the related division facts for the 2, 10 and 5 times-tables.

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Key resources and representations




Guidance for teachers




Each block starts with a teacher guidance page. This provides an overview of the content of the block along with some guidance for teaching. Key vocabulary and common misconceptions or areas potentially requiring additional support are highlighted.

Even numbers are made of pairs.




6 and 16 are even.

Odd numbers are not made of pairs.



7 and 17 are odd.



You could use groups of children to explore whether other numbers are odd or even in the same way.

Guidance for teachers



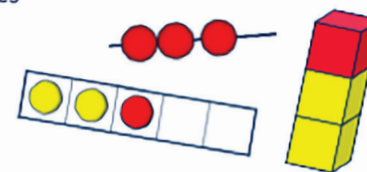
In this block, children explore odd and even numbers using the pair-wise pattern. Children should have opportunities to build and represent the numbers to explore which numbers can be made of pairs and which cannot.

Encourage children to make links between the numbers to ten and teen numbers as they explore odd and even patterns. They should notice that if the ones digit is odd, the number is odd and if the ones digit is even, the number is even.

The final two sessions support children to investigate how odd and even numbers are composed. They should notice that odd numbers always have an odd part and an even part whilst even numbers can have two even parts or two odd parts.

Where appropriate, additional guidance notes can be found beneath key slides.

Each block begins with a guidance page for your information.



Additional guidance can be found in the notes beneath key slides where needed.

Teaching slides



There are frequent opportunities for hands-on activities. The cube symbol indicates an opportunity to use concrete manipulatives alongside the teaching slides.

Let's make pairs to check.

10 is not made of pairs. It must be odd!

Is Tiny correct?

Stem sentences feature throughout to support children in using the correct mathematical language.

They turn pink to encourage the children to say them together.

Let's investigate numbers to 20

Which numbers are made of pairs?

Which numbers are not?

Do you notice a pattern?

Familiar characters support children to discuss key representations and common misconceptions.



Odd numbers are not made of pairs.

1 3 5 7 9

11 13 15 17 19

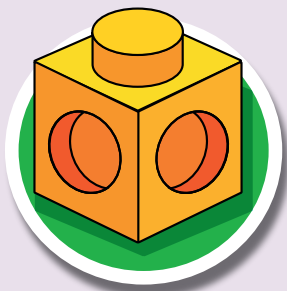
Symbols



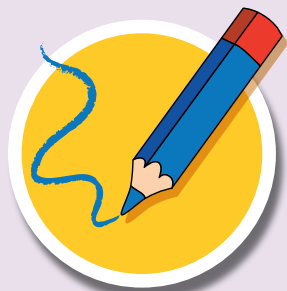
Symbols are used throughout to support you in getting the most out of the teaching slides.



Teacher-led slides



Opportunity to use concrete resources



Opportunity to draw or write



Links to songs or rhymes



Opportunity to talk and compare reasoning



A question which may be structured differently, require a different approach or explore a common misconception.



Opportunity to investigate

Optional follow-on tasks



Each small step has an optional follow-on task for extra fluency practice. Two pages of fluency questions help build confidence and allow you to assess children's understanding.

YEAR 2 STAGE 2 BLOCK 1 STEP 4

Fluency Bee

1 more (exploring commutativity)

Match additions with the same total.

$13 + 1$

$19 + 1$

$11 + 1$

$18 + 1$

$1 + 19$

$1 + 11$

$1 + 18$

$1 + 13$

White Rose MATHS

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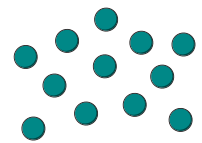
YEAR 2 STAGE 2 BLOCK 4 STEP 1

Fluency Bee

Make pairs


Circle pairs of counters.
Then write **odd** or **even** to complete the sentences.

1




12 is _____

2




11 is _____

3



13 is _____

4



10 is _____

White Rose MATHS

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Meet the characters



You will find all the familiar White Rose characters plus a brand new one.



Join Bee, Tiny and the children on their journey to build confidence and fluency in working with numbers.