



Maths

Addition and Subtraction

Need a coherently planned sequence of lessons to complement this resource?

Lesson Breakdown

Below is our suggestion for the most coherent and progressive sequence to teach this area of Planit Maths steps on the White Rose Maths scheme of learning although we have not aimed to mirror the exact order in the scheme.

Recall and Use Facts (1): Number Facts up to 10
This computer game themed lesson is designed to help children secure their recall of number facts up to 10. Children use a range of methods to investigate and check their understanding. They use a range of methods to investigate and check their understanding. They use a range of methods to investigate and check their understanding.

Recall and Use Facts (2): Number Facts up to 20
This lesson teaches children to use familiar number facts to solve and create problems. Children use a range of methods to investigate and check their understanding.

Solve Problems (1): Using Different Representations to Solve Problems
Children learn to solve addition and subtraction problems using concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods.

Introduction

In this unit, children will learn to recall and use addition and subtraction facts. They use a variety of different models, images and equipment to build their number sense, enabling them to use facts flexibly. They learn different strategies to help them add and subtract numbers efficiently, explaining their methods with concrete resources or jottings. Methods include: adding a unit to a ten; adding three single-digit numbers and adding and subtracting multiples of ten leading to pairs of two-digit numbers. They find the difference between numbers and reason about when it is quicker to find the difference or take away. They build up their understanding of commutativity and inverse relationships, using these to solve increasingly complex missing number problems. They apply their learning to problem-solving, and are able to ask questions, explain their choices and demonstrate their methods.

Resources

In addition to your standard maths resources, you will need:

- digital cameras

Assessment Statements

By the end of this unit:

children working towards the expected level will be able to:

- recall and use at least four out of six number facts to ten and derive their associated subtraction facts;
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required;
- explain their addition and subtraction methods verbally, in pictures or using apparatus;
- understand that two numbers can be added in any order and the answer will be the same.

children working at the expected level will be able to:

- recall number facts to and within ten and subtraction facts. Use these to derive number facts to and within 20 and 100;
- add and subtract within 100: a two-digit number and ones, a two-digit number and tens, two two-digit numbers;
- add three one-digit numbers using efficient methods;
- understand that addition is commutative but subtraction is not, and explain what this means;
- use the inverse relationship between addition and subtraction to solve problems and check calculations;
- solve addition and subtraction problems in context of quantities and measures, using pictures and mentally.

Addition and Subtraction

Maths | Year 2 | Steps to Progression Overview

The aim of this overview is to support teachers using Planit Maths to show the most coherent and progressive sequence to teach each area of maths. We also want to fully support teachers who use the White Rose Maths scheme of learning to make full use of the resources available within Planit Maths. Wherever possible, lesson packs have been matched to each of the small steps on the White Rose Maths scheme of learning.

Yearly Overview

	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		Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division		
Spring	Number: Multiplication and Division		Statistics		Geometry: Properties of Shape			Number: Fractions				
Summer	Position and Direction		Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Measurement: Length and Height		Investigations	

See our [Addition and Subtraction Steps to Progression](#) document.

Twinkl Planit is our award-winning scheme of work with over 4000 resources.



Add 2-Digit and 1-Digit Numbers Crossing 10



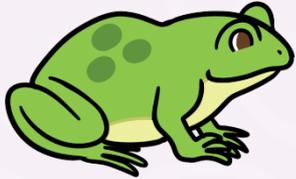
Aim

- To add a 1-digit number to a 2-digit number, crossing ten.

Success Criteria

- I can use known number facts to add numbers that cross a ten boundary.
- I can use a number line to solve addition calculations that cross a ten boundary.
- I can use number patterns to solve addition calculations that cross a ten boundary.

Remember It



Forwards Fred has made number facts of ten.
Some of the numbers are hidden.

Hold up the correct number of fingers to complete the calculations.

$1 + \text{leaf} = 10$



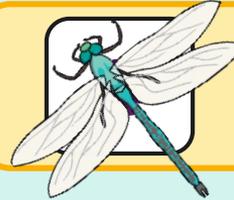
$\text{flower} + 7 = 10$



$2 + \text{butterfly} = 10$



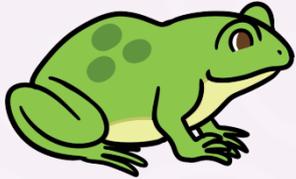
$\text{dragonfly} + 6 = 10$



Can you spot any patterns?

What would come next?

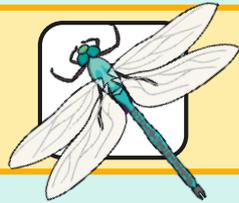
Remember It



Forwards Fred has made number facts of ten.
Some of the numbers are hidden.

Hold up the correct number of fingers to complete the calculations.

$$5 + \square = 10$$



$$\square + 3 = 10$$



$$\square + 2 = 10$$



$$\square + 4 = 10$$

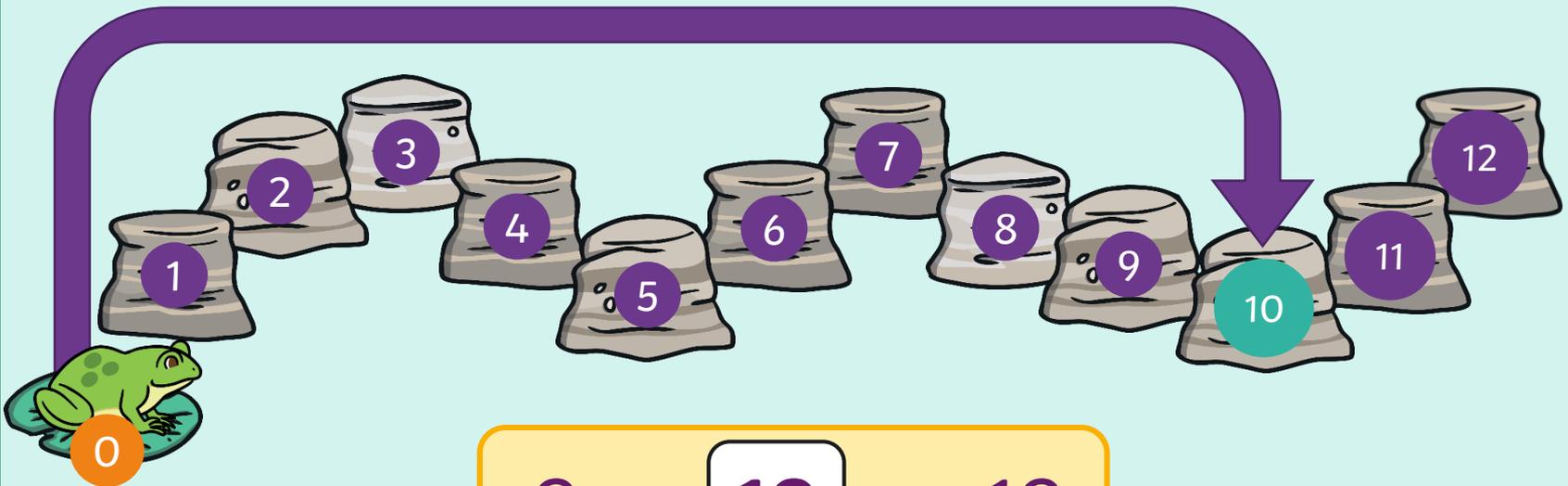


Stepping Stones



Forwards Fred is jumping on the stepping stones.
Lots of them are wobbly! Which stone is safe?

If Fred starts on zero, how far forward will he jump to get to the safe stone?



$$0 + 10 = 10$$

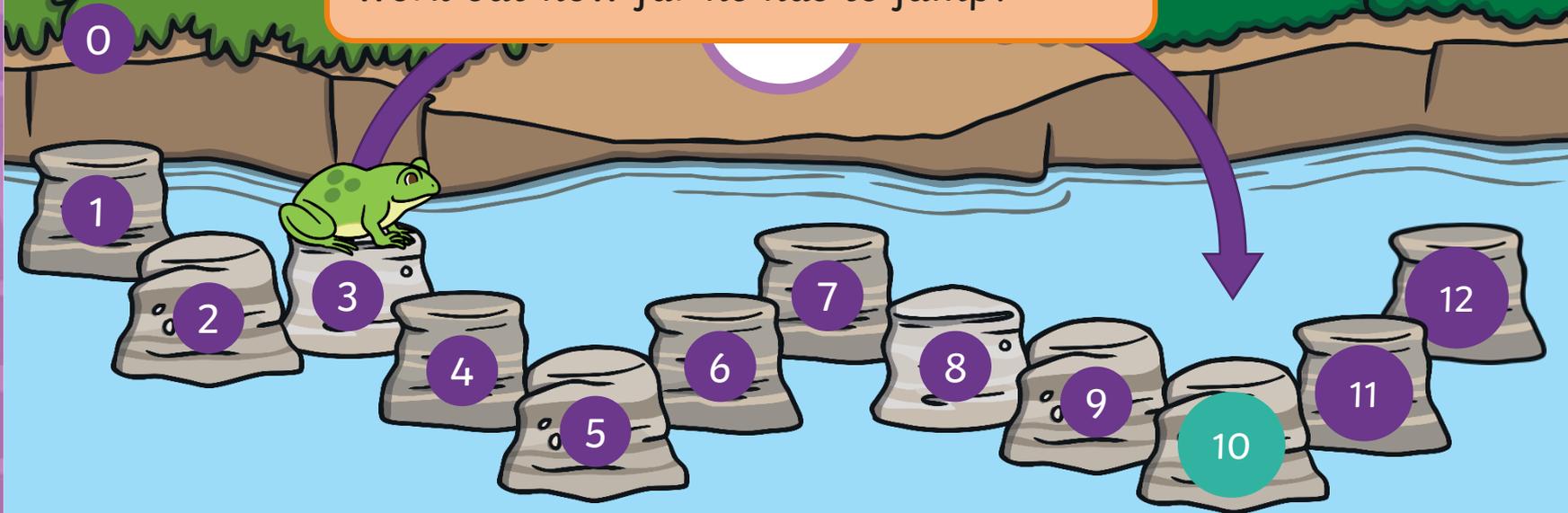
Stepping Stones

Whole Class

Which number is 5 more than 5 starting from?

Which

Which number fact of ten will help you work out how far he has to jump?



How far forward did he jump?

$$3 + 7 = 10$$

Stepping Stones

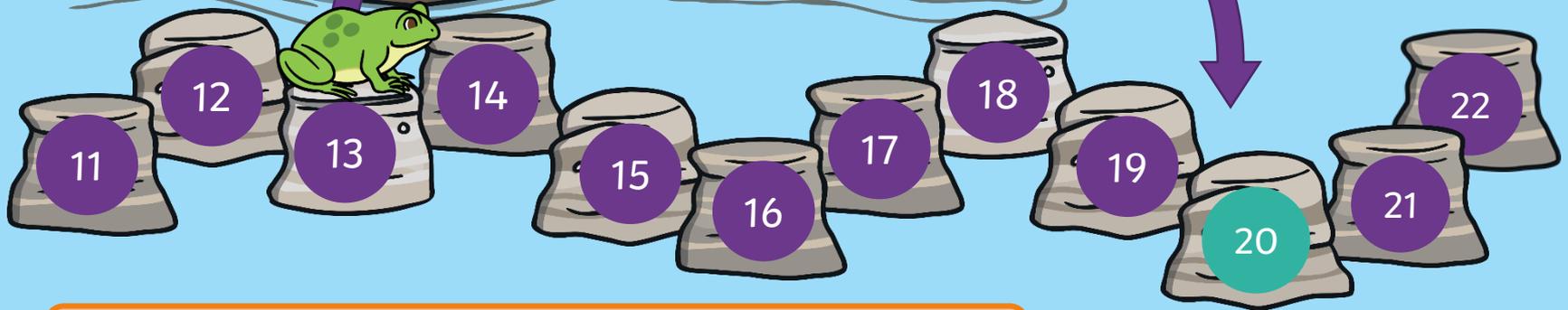
Whole Class

Is there a number fact that will help you work out how far forward he has to jump?

river.

Which number is he starting from?

Which number will he go to?



Some of these stepping stones look wobbly too.

How far forward did he jump?

$$13 + 7 = 20$$

Stepping Stones

Whole Class

Forwards Fred keeps moving on.

Have you spotted it too?

Which number is he starting from?

Which number will he go to?



He's started to notice a pattern with his journey.

How far forward did he jump?

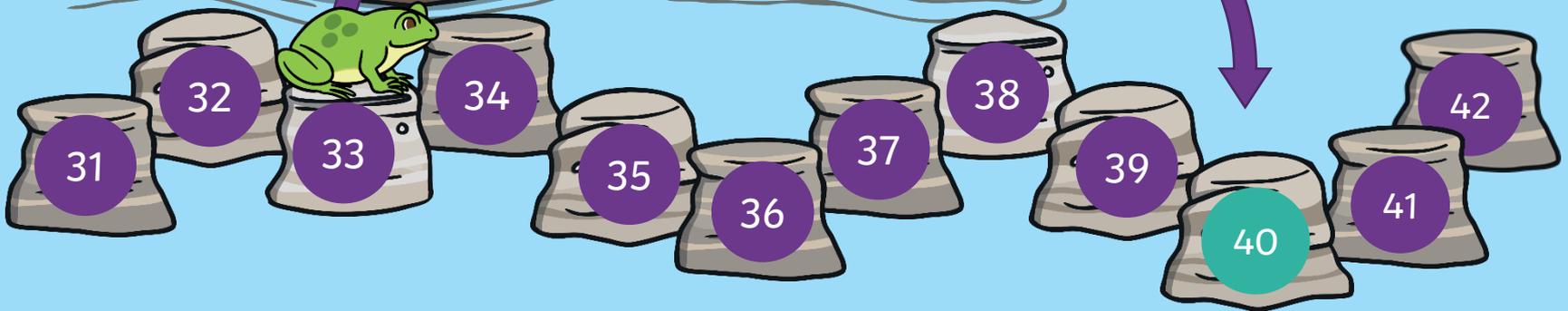
$$23 + 7 = 30$$

Stepping Stones

Whole Class

Fred starts on **33** and moves forward **7** spaces to **40**.

+ 7



Let's check together.

$$33 + 7 = 40$$

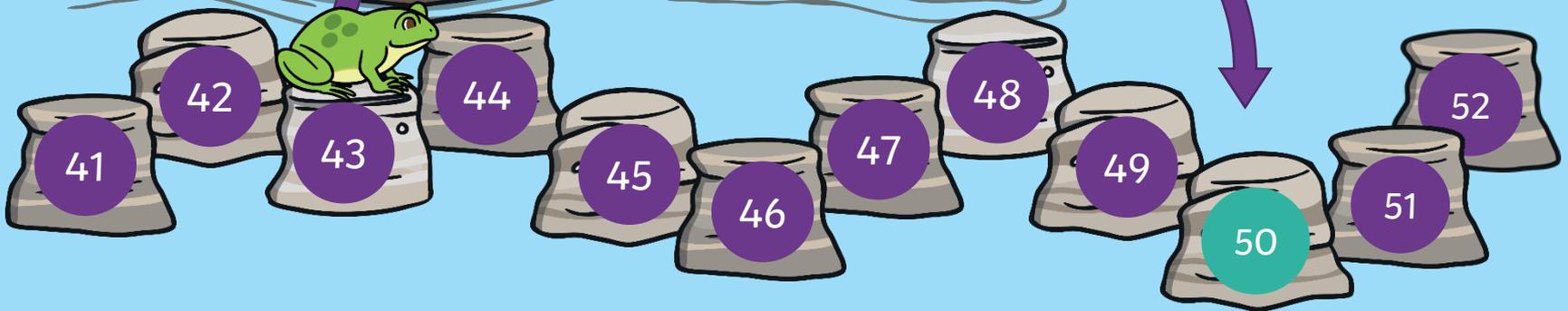
Stepping Stones

Whole Class

This is the last part of Forwards Fred's journey

Can you explain what is going to happen?

+ 7



How do you know?

$$43 + 7 = 50$$

Stepping Stones



$$3 + 7 = 10$$

$$13 + 7 = 20$$

$$23 + 7 = 30$$

$$33 + 7 = 40$$

$$43 + 7 = 50$$

What do you notice?

Can you continue the pattern?

Can you make this pattern on a number line?



A New Adventure



Forwards Fred is starting a new adventure.

Which number is he starting from?

Which number fact of ten will help you work out how far he has to jump?

0

Which number will he go to?



How far forward did he jump?

$$6 + 4 = 10$$

A New Adventure



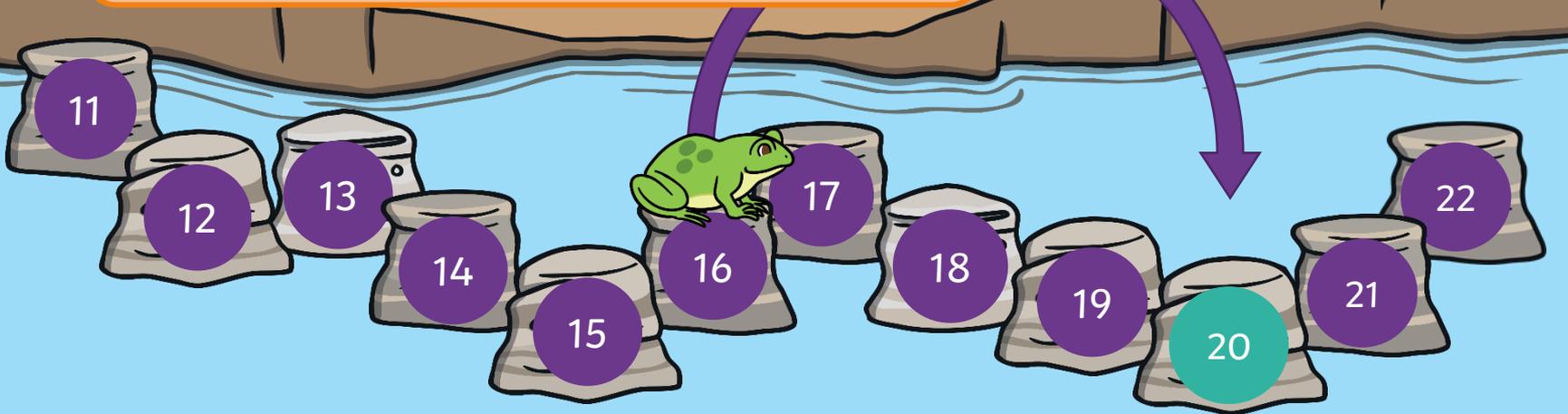
For

Some of these stepping stones look wobbly too.

Which number is he starting from?

Is there a number fact that will help you work out how far forward he has to jump?

Which number will he go to?



How far forward did he jump?

$$16 + 4 = 20$$

A New Adventure



For

He's starting to notice a pattern with his journey.

Have you spotted it too?

Which

How far forward will he need to jump?

number will he go to?



How far forward did he jump?

$$26 + 4 = 30$$

A New Adventure



$$6 + 4 = 10$$

$$16 + 4 = 20$$

$$26 + 4 = 30$$



What do you notice this time?

Can you continue the pattern?

Can you make this pattern on a number line?

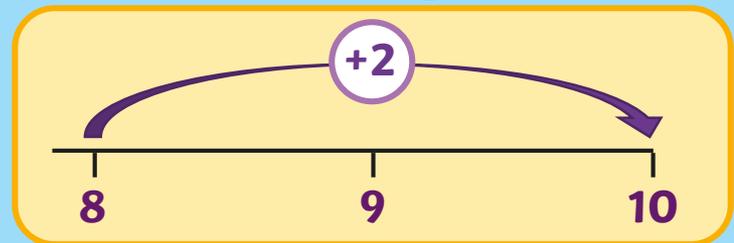
Make a Pattern



Start with a number fact of ten, then continue the pattern.



$$8 + 2 = 10$$

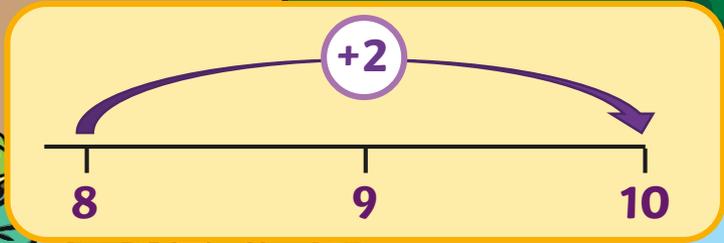


Make a Pattern

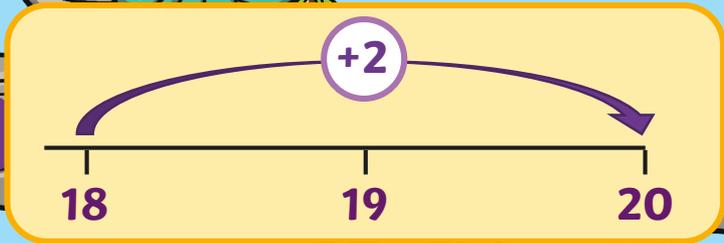


We checked our patterns together.
Check your pattern with a learning partner.

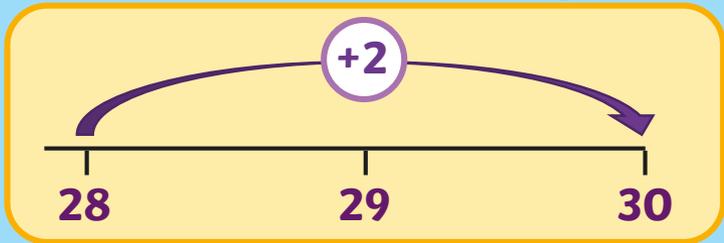
$$8 + 2 = 10$$



$$18 + 2 = 20$$



$$28 + 2 = 30$$



Jumping Further

Whole Class

So, he now needs to jump 3 more.
He will land on 13.



Jumping Further

Whole Class

So, he now needs to jump 3 more. He will land on 23.

5

$$18 + 5 = 23$$

17

18

19

20

21

22

23

24

25

Help Fred work out $18 + 5$.

How will you partition 5?

20

21

22

23

24

25

Jumping Further

Whole Class

So he now needs to jump 4 more. He will land on 34.



8

$$26 + 8 = 34$$

4

4

26

27

28

29

30

31

32

33

34

35

How will you partition 8?

How will you partition 8?

26

27

28

29

30

31

32

33

34

35

Bridging Ten



Bridging Ten Game

To add a one-digit number to a two-digit number, crossing ten.

Instructions

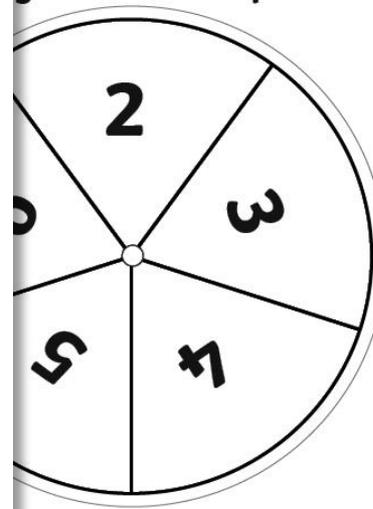
- Each player needs a number line.
- Start from the beginning of your number line.

Bridging Ten Game: Spinner

Bridging Ten Game: Number Lines

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 51 52 53 54 55 56 57 58 59 60

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 51 52 53 54 55 56 57 58 59 60



Diving into Mastery

Dive in by completing your own activity!



Add 2-Digit and 1-Digit Numbers Crossing 10

I made a number fact of ten, then added the other part.

$6 + 5 = \square$

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Can you show me how this will help solve $16 + 5$?

Draw the jumps on the number line, then write the total in the box.

$16 + 5 = \square$

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Can you continue the number pattern?

$6 + 5 = \square$ $16 + 5 = \square$

$\square + 5 = \square$ $\square + 5 = \square$

Missing Numbers



Matilda has spilt ink on her work.
Can you work out what numbers have been hidden?

An illustration of an open notebook with four math problems on lined paper. Each problem has a black ink splat covering a number. A girl with black hair, wearing a grey shirt and purple overalls, is pointing at the notebook with a teal pen. A speech bubble from the pen says "Click on an ink splat to reveal the hidden number."

17 + 7 = 

26 + 5 = 

18 +  = 26

26 +  = 31

Click on an ink splat to reveal the hidden number.

Missing Numbers



Can you make up
a hidden number
problem for a
friend to solve?



Aim



- To add a 1-digit number to a 2-digit number, crossing ten.

Success Criteria

- I can use known number facts to add numbers that cross a ten boundary.
- I can use a number line to solve addition calculations that cross a ten boundary.
- I can use number patterns to solve addition calculations that cross a ten boundary.

