



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

Recall and Use Facts (1): Number Facts up to 10
This computer game themed lesson is designed to help children secure and enable mysterious eggs to hatch and grow into magical creatures. They enable number pairs. Children use a range of methods to investigate and check their presentation, differentiated activity sheets and mastery cards to help children.

NC Statement: Recall and use facts to 20 fluently and derive and use related facts up to 100.
Lesson Aim: To recall and use number facts up to 10.

Recall and Use Facts (2): Number Facts up to 20
This lesson teaches children to use familiar number facts to solve and create them calculate $12 + 3$ and $13 + 2$. They can also apply this to numbers begin are encouraged to use different representations to support their learning. It differentiated activity sheets and mastery cards to help children develop fluency.

NC Statement: Recall and use facts to 20 fluently and derive and use related facts up to 100.
Lesson Aim: To recall and use number facts up to 20.

Solve Problems (1): Using Different Representations to Solve Problems
Children learn to solve addition and subtraction problems using concrete objects and pictorial representations. Children complete number lines and bar most find all-possibilities problems, deepening their understanding by representing. This lesson includes Diving into Mastery activity cards with fluency, reasoning.

NC Statement: 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.
Lesson Aim: To solve addition and subtraction problems using objects, pictures and models.

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 numbers 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		Measurement: Length and Height	Consolidation	
Summer	Position and Direction		Problem Solving and Efficient Methods		Measurement: Time		Measurement: Mass, Capacity and Temperature		Investigations			

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

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



Number Facts within 10

$2 + 1$

$0 + 3$

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Aim

- To recall and use number facts within 10.

Success Criteria

- I can recall addition facts within 10.
- I can recall subtraction facts within 10.
- I can use known facts in a context.

Remember It



These all have the same meaning:

Two numbers that go together
to make a total.

Addition
Facts

$$0 + 0$$

Number
Bonds

$$2 + 2$$

Number
Pairs

You can swap them around.
They still have the same meaning.

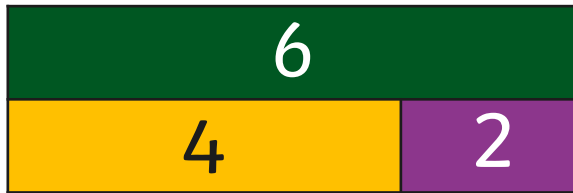
Can you explain what it is?

Practise It

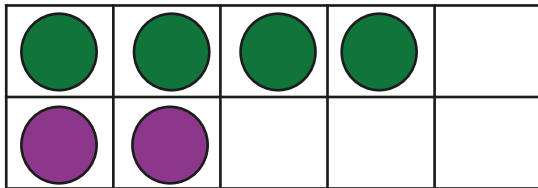


There are lots of different ways to explore number facts.

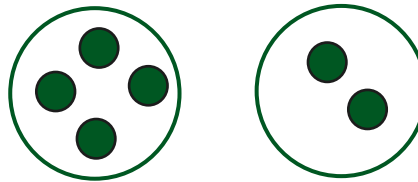
bar models



ten-frames



making groups

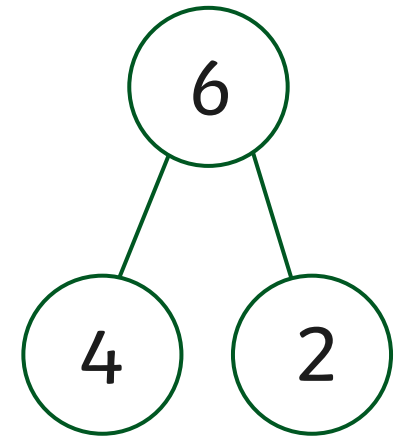


calculations

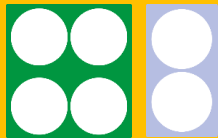
$$4 + 2 = 6$$

$$6 - 4 = 2$$

part-whole models



Using equipment and making jottings are great ways to show your learning.

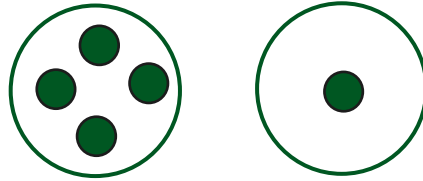
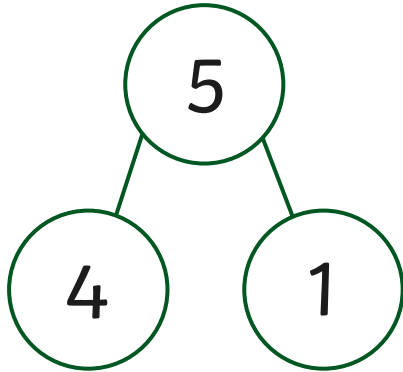


Try some different ways today.

Practise It

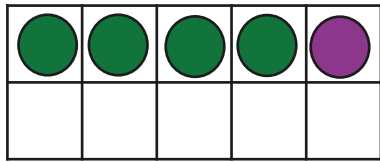


How many different ways can you find to make 5?

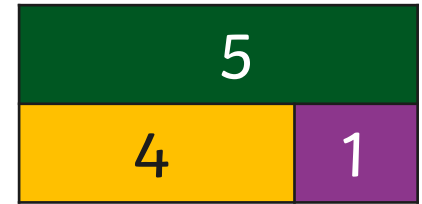


$$4 + 1 = 5$$

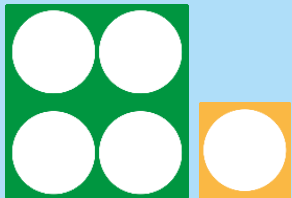
$$5 - 1 = 4$$



5



How will you show your learning?



Fact Finder



We can't wait to play our new game.

We'll need some help to get through all the levels.

Fact Finder



Fact Finder



Start

Fact Finder



Use equipment or jottings to show your number facts.

Fact Finder

Loading...



Fact Finder



Use equipment or jottings to show your number facts.

Level Two
Congratulations!
Hatch the egg.

Find all the number facts

Level Three →
Which number pairs make 2?

Fact Finder



Use equipment or jottings to show your number facts.

A tablet screen displaying a yellow card with the text "Level Three Congratulations!" in purple. A sword is drawn across the text. Below the sword is a red egg with a chick inside, flanked by the numbers 1 and 2. There are several grey stars on the card. A speech bubble from a knight character asks, "Did you find them both? think you will find... 3?". A purple arrow points to the right with the text "Level Four".

Level Three
Congratulations!

boy Hello

1 2

Find all the number facts...

Did you find them both?
think you will find... 3?

Level Four

Fact Finder



Use equipment or jottings to show your number facts.

Level Four

Cony Calculations!

Look after the hatchling.

$$1 + 3$$
$$2 + 2$$

Find all the numbers...

Which number...

Level Five

Fact Finder



Use equipment or jottings to show your number facts.

Level Five Congratulations!

Ready to fly!

Find all the number facts for 5

How have you shown your answers? Can you show another way?

Level Six

Fact Finder



Use equipment or jottings to show your number facts.

Level Six
Congratulations!
Find the next egg.

Find all the number facts for 6.
If there are 3 eggs, how many are left?
Yes! I was right! What do you think?

Level Seven

Fact Finder



Use equipment or jottings to show your number facts.

Level Seven
Congratulations!

Hatch the egg.

1 2 3 4 5 6 7

Find all the numbers for

That's interesting
think will happen

Level Eight

Fact Finder



Use equipment or jottings to show your number facts.

Level Eight
Congratulations!

Sau Hello!

Find all the number facts for $0 + 8$

Find a dice

That's great! our number is

Level Nine

Fact Finder



Use equipment or jottings to show your number facts.

A tablet screen displaying a math game interface. At the top, it says "Level Nine" and "Congratulations!". Below that, it says "Look after the knight." and "Find all the number facts for 9". There are illustrations of a knight, a sword, a dragon, and a large number 9. A purple arrow points to "Level Ten".

Level Nine

Congratulations!

Look after the knight.

Find all the number facts for 9

That surprised me with my number facts for 9

Level Ten

Fact Finder

Whole Class



Fun Facts



You used all of these fantastic facts to complete the game.



1

2

3

4

5

6

7

8

9

10

$0 + 1$

$0 + 2$

$0 + 3$

$0 + 4$

$0 + 5$

$0 + 6$

$0 + 7$

$0 + 8$

$0 + 9$

$0 + 10$

$1 + 1$

$1 + 2$

$1 + 3$

$1 + 4$

$1 + 5$

$1 + 6$

$1 + 7$

$1 + 8$

$1 + 9$

$2 + 2$

$2 + 3$

$2 + 4$

$2 + 5$

$2 + 6$

$2 + 7$

$2 + 8$

$3 + 3$

$3 + 4$

$3 + 5$

$3 + 6$

$3 + 7$

$4 + 4$

$4 + 5$

$4 + 6$

$5 + 5$

Talk to your friend about any patterns that you can see.

Fun Facts



1	2	3	4	5	6	7	8	9	10
$0 + 1$	$0 + 2$	$0 + 3$	$0 + 4$	$0 + 5$	$0 + 6$	$0 + 7$	$0 + 8$	$0 + 9$	$0 + 10$
	$1 + 1$	$1 + 2$	$1 + 3$	$1 + 4$	$1 + 5$	$1 + 6$	$1 + 7$	$1 + 8$	$1 + 9$
			$2 + 2$	$2 + 3$	$2 + 4$	$2 + 5$	$2 + 6$	$2 + 7$	$2 + 8$
					$3 + 3$	$3 + 4$	$3 + 5$	$3 + 6$	$3 + 7$
							$4 + 4$	$4 + 5$	$4 + 6$
									$5 + 5$

What happens when you add zero to any number?

The number stays the same.

Now that we know this top tip, these are number facts that we can learn to recall.

Fun Facts



1 2 3 4 5 6 7 8 9 10

1 + 1	1 + 2	1 + 3	1 + 4	1 + 5	1 + 6	1 + 7	1 + 8	1 + 9
		2 + 2	2 + 3	2 + 4	2 + 5	2 + 6	2 + 7	2 + 8
				3 + 3	3 + 4	3 + 5	3 + 6	3 + 7
						4 + 4	4 + 5	4 + 6
								5 + 5

What happens when you add one to any number?

It makes the next number.

Now that we know this handy hint, these are number facts that we can learn to recall.

Fun Facts



1 2 3 4 5 6 7 8 9 10

$2 + 2$	$2 + 3$	$2 + 4$	$2 + 5$	$2 + 6$	$2 + 7$	$2 + 8$
		$3 + 3$	$3 + 4$	$3 + 5$	$3 + 6$	$3 + 7$
				$4 + 4$	$4 + 5$	$4 + 6$
						$5 + 5$

Can you spot any number doubles?

What do you know about number doubles?

Fun Facts



1 2 3 4 5 6 7 8 9 10

$2 + 3$	$2 + 4$	$2 + 5$	$2 + 6$	$2 + 7$	$2 + 8$
		$3 + 4$	$3 + 5$	$3 + 6$	$3 + 7$
				$4 + 5$	$4 + 6$

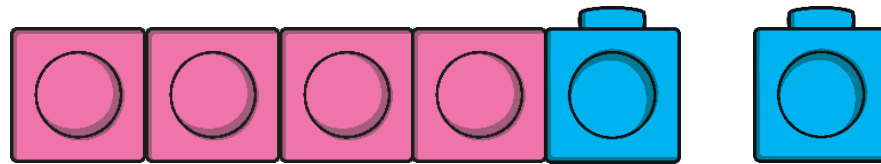
Are there any that you already know?
If we know what happens when we add zero or one and we know our number doubles, this is all we have left to learn!
What can you do to practise the last few number facts?

Speedy Subtraction

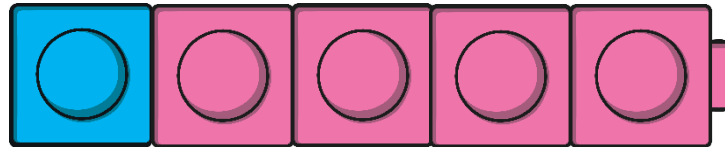


We can use addition facts to help us solve subtraction calculations.

If I know $4 + 1 = 5$, then I know $1 + 4 = 5$.



I also know $5 - 1 = 4$ and $5 - 4 = 1$.

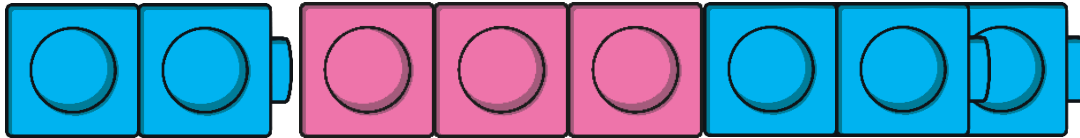


Speedy Subtraction

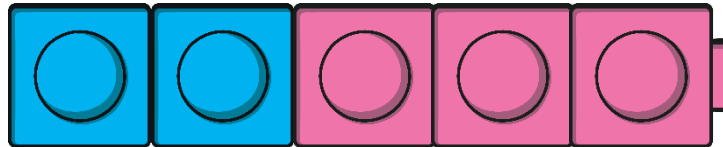


We can use addition facts to help us solve subtraction calculations.

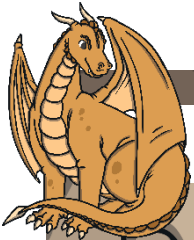
If I know $3 + 2 = 5$, then I know $2 + 3 = 5$.



I also know $5 - 2 = 3$ and $5 - 3 = 2$.



Speedy Subtraction



Use number facts of ten to solve these subtraction calculations.

$$10 - 6 = 4$$

$$6 + 4 = 10$$

$$10 - 8 = 2$$

$$8 + 2 = 10$$

$$10 - 2 = 8$$

$$2 + 8 = 10$$

$$10 - 5 = 5$$

$$5 + 5 = 10$$

$$10 - 3 = 7$$

$$3 + 7 = 10$$

$$10 - 9 = 1$$

$$9 + 1 = 10$$

$$10 - 1 = 9$$

$$1 + 9 = 10$$

$$10 - 7 = 3$$

$$7 + 3 = 10$$

$$10 - 4 = 6$$

$$4 + 6 = 10$$

Speedy Subtraction



Use number facts of nine to make subtraction calculations.
Can you find them all?

$$9 - 0 = 9$$

$$9 - 5 = 4$$

$$9 - 1 = 8$$

$$9 - 6 = 3$$

$$9 - 2 = 7$$

$$9 - 7 = 2$$

$$9 - 3 = 6$$

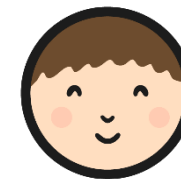
$$9 - 8 = 1$$

$$9 - 4 = 5$$

$$9 - 9 = 0$$

Number Facts within 10

Activity Sheets



Number Facts within 10

To recall and use number facts within 10.

Fact Finders

Find and colour number facts of 9 to make a path from the egg to the bird.

2 + 7	6 + 3	4 + 4	5 + 5	9 + 1
5 + 3	9 + 0	6 + 2	1 + 8	4 + 5
4 + 6	8 + 1	7 + 3	3 + 6	2 + 8
1 + 9	5 + 4	0 + 9	7 + 2	4 + 3

Finish the number facts to transform the dragon.

6	7	8	9	10
0 + <input type="text"/>	0 + <input type="text"/>	<input type="text"/> + 8	0 + <input type="text"/>	<input type="text"/> + <input type="text"/>
1 + <input type="text"/>	1 + <input type="text"/>	1 + <input type="text"/>	<input type="text"/> + 8	<input type="text"/> + <input type="text"/>
2 + <input type="text"/>	2 + <input type="text"/>	<input type="text"/> + <input type="text"/>	<input type="text"/> + <input type="text"/>	<input type="text"/> + <input type="text"/>

Use number facts that you know to solve these subtraction calculations.

6 - <input type="text"/> = 3	7 - 4 = <input type="text"/>	8 - <input type="text"/> = 1	9 - <input type="text"/> = 6	10 - <input type="text"/> = 5
6 - 5 = <input type="text"/>	7 - <input type="text"/> = 2	8 - 3 = <input type="text"/>	9 - 7 = <input type="text"/>	10 - 2 = <input type="text"/>
6 - <input type="text"/> = 2	7 - 6 = <input type="text"/>	8 - <input type="text"/> = 2	9 - <input type="text"/> = 5	10 - <input type="text"/> = 3

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Number Facts within 10

To recall and use number facts within 10.

Fact Finders

Find and colour number facts of 6 to make a path from the egg to the bird.

6 + 1	3 + 3	0 + 6	5 + 1	4 + 3
1 + 5	4 + 2	5 + 2	2 + 4	6 + 0
3 + 4	5 + 2	4 + 4	3 + 2	5 + 0

Finish the number facts to transform the dragon.

6	7	8	9	10
0 + <input type="text"/>	0 + <input type="text"/>	0 + <input type="text"/>	<input type="text"/> + 9	0 + <input type="text"/>
<input type="text"/> + 6	1 + <input type="text"/>	<input type="text"/> + 7	1 + <input type="text"/>	<input type="text"/> + 9
<input type="text"/> + <input type="text"/>	0 + <input type="text"/>	<input type="text"/> + <input type="text"/>	<input type="text"/> + <input type="text"/>	2 + <input type="text"/>

Use number facts that you know to solve these subtraction calculations.

6 - <input type="text"/> = 0	7 - 4 = <input type="text"/>	8 - <input type="text"/> = 4	9 - 7 = <input type="text"/>	10 - <input type="text"/> = 5
6 - 0 = <input type="text"/>	7 - <input type="text"/> = 2	8 - 5 = <input type="text"/>	9 - <input type="text"/> = 3	10 - 6 = <input type="text"/>
6 - <input type="text"/> = <input type="text"/>	7 - 0 = <input type="text"/>	8 - <input type="text"/> = 7	9 - 4 = <input type="text"/>	10 - <input type="text"/> = 7

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Number Facts within 10

To recall and use number facts within 10.

Fact Finders

Draw lines to match the number facts with the totals.

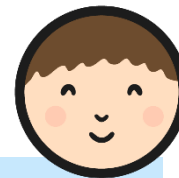
3 + 3	1 + 3	0 + 2	2 + 3	0 + 5
1	0 + 1	1 + 2	0 + 4	2 + 2
1	0 + 1	1 + 2	0 + 4	2 + 2
1	0 + 1	1 + 2	0 + 4	2 + 2

Finish the number facts to transform the dragon.

6	7	8	9	10
0 + <input type="text"/>	0 + <input type="text"/>	0 + <input type="text"/>	<input type="text"/> + 9	0 + <input type="text"/>
0 + 6	0 + 7	0 + 8	<input type="text"/> + 9	0 + <input type="text"/>
0 + 5	1 + 6	<input type="text"/> + 7	1 + <input type="text"/>	1 + 9
<input type="text"/> + <input type="text"/>	<input type="text"/> + 5	2 + 6	2 + <input type="text"/>	2 + 8
<input type="text"/> + <input type="text"/>	<input type="text"/> + 4	<input type="text"/> + <input type="text"/>	3 + 6	<input type="text"/> + <input type="text"/>
<input type="text"/> + <input type="text"/>	4 + <input type="text"/>	4 + 5	4 + <input type="text"/>	5 + <input type="text"/>

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Diving into Mastery



Dive in by completing your own activity!



Number Facts within 10

Complete the facts of 6.

6 $0 +$ $1 +$ $2 +$ $3 +$

Complete the facts of 7.

7 $+ 7$ $+ 6$ $+ 5$ $+ 4$

Finish the number facts.

8 $0 + 8$ $1 + 7$ $2 + 6$ $+$ $+$

Finish the number facts.

9 $+$ $1 + 8$ $+$ $3 + 6$ $+$

Write the number facts of 10.

10 $+$ $+$ $+$
 $+$ $+$ $+$

Game Over



We both made number facts of ten, but they look different.
Whose answers should we use to finish the game?

They both show the number facts of ten.

$$0 + 10$$

$$1 + 9$$

$$2 + 8$$

$$3 + 7$$

$$4 + 6$$

$$5 + 5$$

$$10 + 0$$

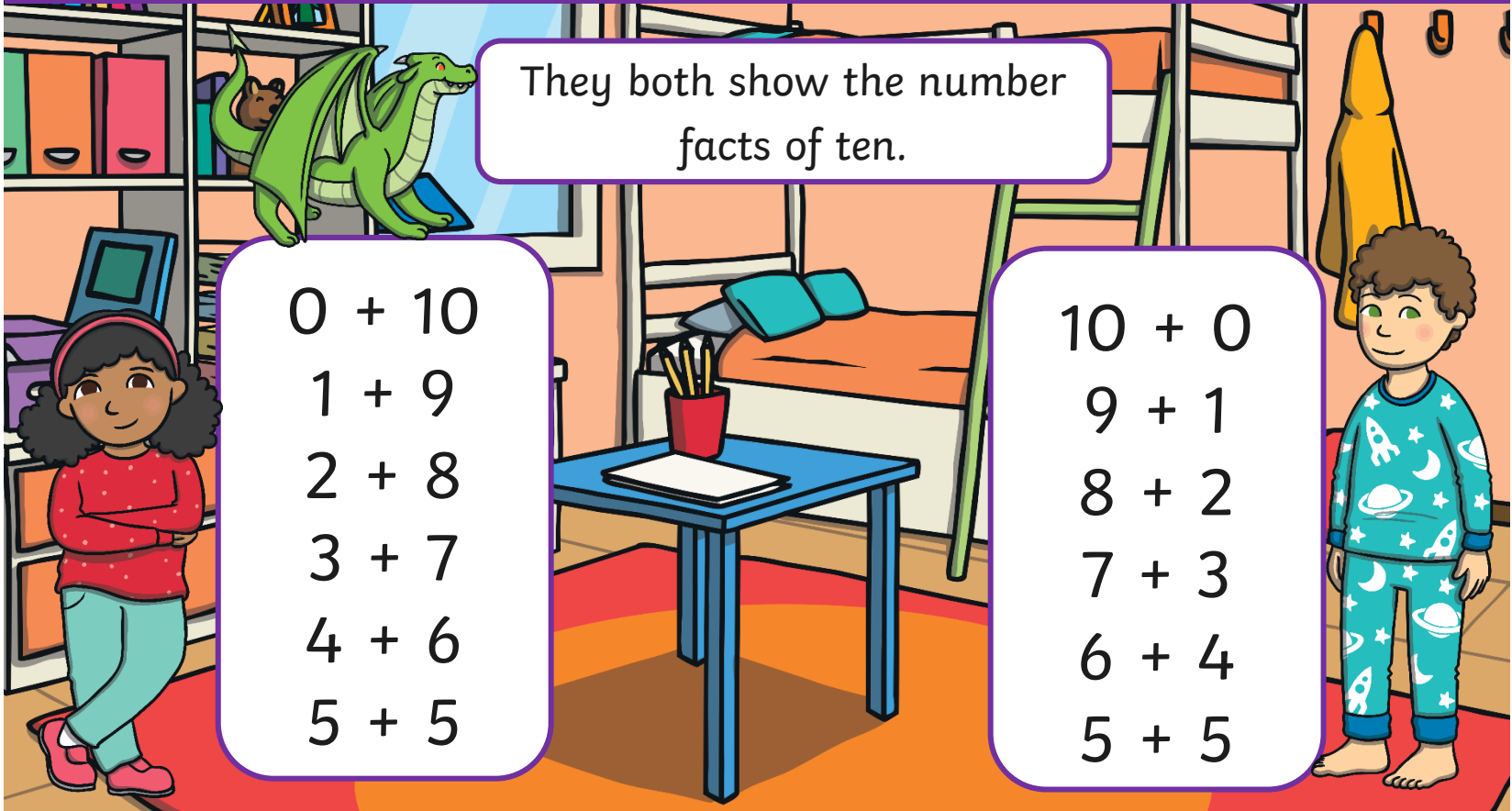
$$9 + 1$$

$$8 + 2$$

$$7 + 3$$

$$6 + 4$$

$$5 + 5$$



Aim



- To recall and use number facts within 10.

Success Criteria

- I can recall addition facts within 10.
- I can recall subtraction facts within 10.
- I can use known facts in a context.

