Unit 1
Numbers to 5

Mastery Expert tip! "When teaching this unit, I used the contexts given in the pictures to make the maths as practical as possible. The children were far more confident about explaining their ideas when we were role-playing the concepts and making the maths relevant to their lives."

Don't forget to watch the Counting skills video!

Early Learning Goals

This unit supports the following ELGs:

- **Number ELG:**
  Have a deep understanding of number to 10, including the composition of each number
  Subitise (recognise quantities without counting) up to 5
- **Listening, attention and understanding ELG:**
  Make comments about what they have heard and ask questions to clarify their understanding

WHY THIS UNIT IS IMPORTANT

This unit focuses on children's ability to recognise, represent and manipulate numbers to 5. Children begin by counting groups of objects up to 3, then 4, before looking at 5. Children will learn to recognise and count different representations of numbers up to 5 and use a five frame to help structure the counting and reasoning.

WAYS OF WORKING

Ensure there are five frames for children to use during this unit. Children can use five frames and real life objects alongside the **Online Flashcards** to help them understand the concepts.

WHERE THIS UNIT FITS

- **Unit 1: Numbers to 5**
- Unit 2: Comparing groups within 5

In this unit, children will learn to count reliably to 5 and recognise the numerals 1, 2, 3, 4 and 5. They will begin to recognise different representations of numbers up to 5, such as those shown in a five frame and on dice, and to understand that even if the order or arrangement changes, the number stays the same.

Link to Key Stage 1

Number – number and place value

- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number; count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
- identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least

The learning in this unit establishes methods of counting objects reliably and the concept that numbers can be shown in different representations, which sets a strong foundation for children working with larger numbers and quantities in KS1.

ASSESSING MASTERY

Children who have mastered this unit will be able to:

- count up to 5 objects reliably
- understand that numbers can be shown in different representations
- recognise the numerals 1, 2, 3, 4 and 5
- match groups of objects to the correct numeral

COMMON MISCONCEPTIONS	STRENGTHENING UNDERSTANDING	GOING DEEPER
Children may find counting backwards trickier and mistakenly count forwards instead.	Role-play situations where counting down is necessary, such as a rocket launch or blowing out birthday candles. Also sing songs like 'Five little monkeys' or 'Five little ducks'.	Count forwards round in a circle of up to five children. When the teacher shakes a tambourine switch to counting backwards.
Children may count too many or too few. They may count an object more than once or leave one out.	Encourage children to line up objects in a row and touch each object as they count.	Challenge children to count up to 5 objects from a larger group. Do they know when to stop counting?

STRUCTURES AND REPRESENTATIONS

Five frame: The five frames help to give children a sense of the numbers, and support their early understanding of number bonds to 5.

Multilink cubes: Multilink cubes provide a physical representation of an amount, which children can handle and move as they count to support their early counting skills.

RESOURCES

Mandatory: digit cards, five frame (photocopiable 7), multilink cubes, real life objects (buckets, spades, leaves, candles, party hats, plates or cups), dice, laminated print outs of numerals 1–5 (photocopiables 2–6)

Optional: any items that children can count (such as pencils, crayons, dice, natural objects) birthday cards, playdough, photos or drawings of groups to represent 1, 2 and 3, pictures of butterflies, camera, paper, pens, teddies, plastic plates, cups and cutlery, party hats, party bags, toy food, pieces of fruit, hoop, bean bags, role-play toys, skipping ropes, string, chalk

TEACHING TOOLS

five frame, multilink cubes

KEY LANGUAGE

There is some key language that children will need to know as part of the learning in this unit:

- 1, 2, 3, 4, 5, one, two, three, four, five, number
- count, count forwards, count backwards
- how many, total, altogether
- five frame, cube
- **same**, **different**
- next, after, arrange

Counting to 1, 2 and 3

Learning focus

This week, children will start to count to 3 and back from 3. They will link the skill of counting 3 concrete objects to the pictorial representation of 3, and then to the abstract numerals 1, 2 and 3.

Small steps

- **This step: Counting to 1, 2 and 3**
- Next step: Counting to 4

COMMON MISCONCEPTIONS

Children may count too quickly, not focusing on the one-to-one correspondence. Reinforce the principle of counting each object and saying the corresponding name of the number out loud. Encourage children to move the object to the side as they count to help them make the physical link between object and number. Ask:

- *Can you move the object and count the number at the same time? How many are there? Count them all carefully.*

Children may be tempted to race ahead with their counting, without taking time to ensure they are saying each number in order. Check children have a stable counting order. Encourage children to say the full sequence of numbers out loud. Ask:

- *How many are there? Can you count them all?*

KEY LANGUAGE

In lesson: one, two, three, 1, 2, 3, **different**, **same**

Other language to be used by the teacher: count, forwards, backwards, how many, in total, altogether

RESOURCES

Mandatory: buckets and spades, laminated print outs of numerals 1–3 (photocopiables 2–4)

Optional: any resources for children to count, such as pencils, toy cars, building blocks, paper, pens, bean bags, apples etc, photos or drawings of groups to represent 1, 2 and 3, camera, paper, pens

EXPLORE

Taking every opportunity throughout the school day to build and reinforce mathematical concepts gives children's learning purpose and meaning in the wider context of their lives.

ACTIVITY	AREA	DESCRIPTION	RESOURCES
Matching groups of objects to a number	Classroom	Provide large numerals 1–3. Encourage children to collect groups of 1, 2 or 3 objects from around the classroom or the outside area. Ask them and place their collections with the correct numeral.	Groups of small objects for children to collect, large laminated numerals 1–3
1, 2, 3 display	Display board	Split a large display board into 3 sections. Number them with a large numeral, 1, 2 and 3, and a corresponding representation of this number. Ask children to bring or draw pictures that represent 1, 2 and 3 to stick them on to the relevant part of the board.	Large numerals 1–3, photos or drawings of groups to represent 1, 2 and 3, camera
Classroom rules	Classroom	Ask: *How many can play at the water table/sand pit/in the home area at one time?* Make signs with children to display in these areas using the numeral and a picture of the number of children, to indicate the number of children allowed to play in any of the areas at one time.	Paper, pens

Day 1

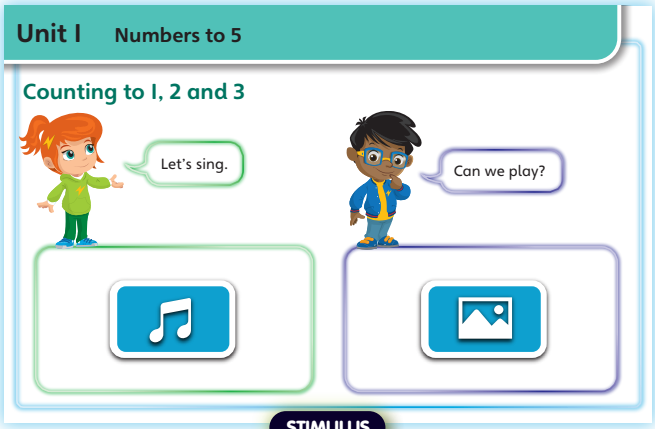
Learning focus

Stable order of counting to 3

Before you teach

- How will you support children who do not know the number names 1, 2 and 3?
- How could you adapt the resources to support children who struggle to hold small objects?

Starter



STIMULUS

STIMULUS Song: 1, 2, 3

1, 2, 3

1, 2, 3, won't you sing along with me.
[Shout] *1, 2, 3!*

1, 2, 3, won't you clap along with me.
[Shout] *1, 2, 3!*

1, 2, 3, won't you hop along with me.
[Shout] *1, 2, 3!*

WAYS OF WORKING Whole class

Introduce the concept of counting to 3 by listening to and singing the song with the whole class, encouraging them to join in with the actions.

IN FOCUS The song in this **Starter** is a good opportunity to stimulate the stable order of counting to 3. The numbers 1, 2 and 3 are introduced to children who have not come across them before.

ASK

- *What numbers did you hear? '1, 3, 2' – is that the right order? How do you say them in the right order? Tell me how to count to 3.*

STIMULUS

STIMULUS Photograph prompting a game

The photograph launched from the hotspot shows children doing an action in response to the teacher. Use this as a stimulus for introducing a simple 'countdown from 3' game.

WAYS OF WORKING Whole class

Stand at the front of the class and give children a simple instruction such as: *Touch your nose – 3, 2, 1.* Next, individual children take it in turns to stand at the front of the class and give an instruction, followed by the countdown: *3, 2, 1.* Children should complete the action straight after saying 1. This is similar to the familiar 'ready, steady, go'.

IN FOCUS The game offers a good opportunity to embed the stable order of counting to and back from 3. The game builds on understanding of the concept that numbers can go forwards and backwards.

ASK

- *What is the same and what is different with the counting this time? When should you do the action?*

GET ACTIVE In a large indoor or outdoor space, encourage children to continue the game in the **Starter** by doing an action (hop, jump, touch the ground, arm stretches) 3 times, counting up as they go. Say: *Do 3 hops, 3, 2, 1 go: hop, hop, hop* as they shout *1, 2, 3* – one hop per count.

Day 2

Learning focus

One-to-one correspondence to 3

Discover

WAYS OF WORKING Whole class or small groups
Use every opportunity throughout the school day to count to and back from 3 with children. Ensure spades are available for children to use today.

IN FOCUS This **Discover** picture provides an opportunity to reinforce the stable order of counting. Some children may already be able to count to 3, but truly mastering the skill of one-to-one correspondence will help children when they start to work with higher numbers later on in the term. The question *How many spades are there?* introduces the concept of cardinality: how the last number in the count represents the total amount.

ASK

- *What else can you see in the picture?*
- *How many buckets are there? How many children are there? How many flags are there in the sandcastle?*

STRENGTHEN Ensure children use actual objects to represent the pictures. Teachers could set up the scenario presented in the **Discover** picture in the sand area so children can act out the problem.

DEEPEN Use guided prompt questions to more deeply embed children's understanding of one-to-one correspondence. Ask: *Can every child have a bucket? Can every child have a spade? How do you know?*

Share

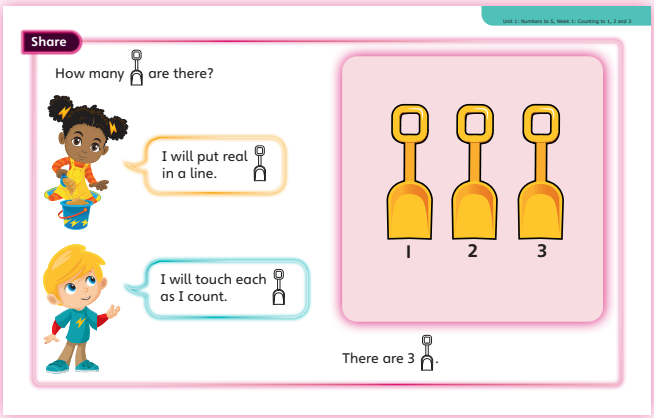
WAYS OF WORKING Whole class

IN FOCUS **Share** introduces lining up objects to count them and presents the abstract numerals 1, 2 and 3 for the first time.

ASK

- *How might you count these?*
- Refer to what Flo is saying: *Can you use spades to help you? Why does it help to line them up?*
- Refer to what Dexter is saying: *Why does touching each spade make it easier to count? How do you know how many there are altogether?*
- Point to the numbers: *Do you recognise these? What do you call them? Have you seen them anywhere before? What do they mean? How do they link to the picture?*

STRENGTHEN Refer children to what Flo is saying. Encourage them to use three real spades. Next, look at what Dexter is saying and prompt children to touch each spade as they count, to ensure they link what they're saying with the physical representation of the number.



DEEPEN Encourage reasoning skills. Ask: *Are you counting forwards or backwards? How do you know? If the spades are in a different order, how many are there now? How do you know?* Look for children who immediately respond that there is the same total, even if they are in a different order.

GET ACTIVE Go to the sand area. Ask: *How many buckets are in the sand area? How many spades? What other objects are in the sand area? Can you count the different objects?*

Day 3

Learning focus

Cardinality to 3

Think together

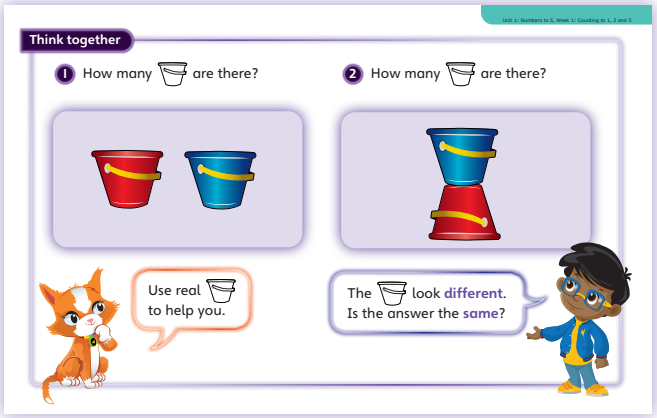
WAYS OF WORKING Whole class or small groups

To help prepare for the **Think together**, ask children to sit in a circle. Put two buckets in the middle of the circle, both the right way up. Ideally the buckets should be identical except for their colour. Discuss what is the same and what is different about the way the buckets look. Are they the same size? Are they the same colour? How many are there? Swap their positions over, so that children count the one that was previously number 2 first. What has changed? How many are there now? Move the buckets again, so there is a bigger gap between them. What has changed? How many are there now?

IN FOCUS Questions 1 and 2 help to reinforce the concept of the cardinality of numbers: understanding that arranging the same objects in different ways does not affect the number of objects.

ASK

- Question 1: *What does 'how many' mean? What do you need to do to find the answer?*
- Question 1: *If you count 1 and 1, how many are there altogether? What could you use to help you? Are the real buckets the same as the ones in the picture? Does it matter?*
- Question 2: *How many buckets are there in this picture? How do you know? Could you move the buckets apart? Would there still be two?*



STRENGTHEN Use real buckets to recreate the pictures. Encourage children to touch the buckets as they count and develop a rhythm of counting finishing with a full sentence, for example: *1* [touch bucket], *2* [touch bucket]. *There are 2 buckets.* Start with buckets that are the same size and colour before using buckets that are different colours and sizes.

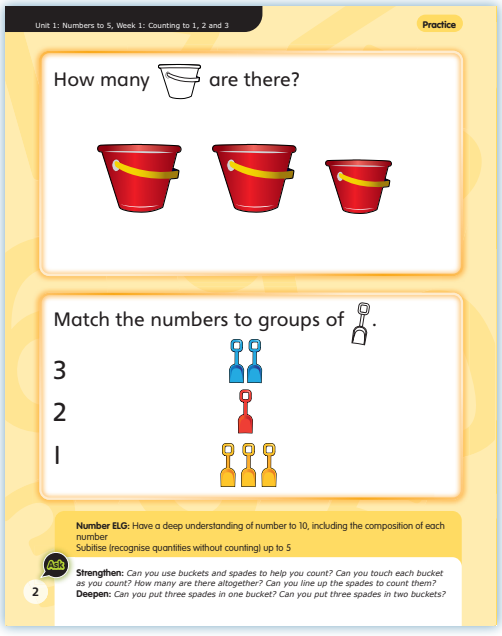
DEEPEN Put more than 3 buckets or other objects in the sand tray and ask children to count out 1, 2 or 3 from a larger group. The objects might be different colours or sizes so children can choose similar objects to count out, for example: *1, 2. There are 2 red spades. 1, 2, 3. There are 3 spades altogether.*

Practice: Journal 1

WAYS OF WORKING Independent thinking

IN FOCUS In this **Practice** activity, children can use real objects to help them count. The objects are now different sizes or in a different position to deepen children's thinking. Encourage them to count the objects and then say how many objects there are altogether in a full sentence, for example: *1, 2, 3. There are 3 buckets.* In Question 2, children are tasked with matching quantities to the corresponding numeral. Children should continue to use their touch counting skills to identify how many spades are in each set. Once the quantity is identified, children need to find the corresponding numeral.

MASTERY CHECKPOINT Can children answer both parts? If children are struggling with the first part, they may need more support with one-to-one correspondence. If they find the second part challenging, give them more opportunities to practise counting everyday objects. Encourage children to touch or move objects as they count them, and say the number out loud. If children are struggling to match the quantities to the corresponding numeral, they may need more opportunities to see and read the numerals 1 to 3 within Maths sessions in the classroom environment.



Day 4

Learning focus

Representations to 3

Challenge

WAYS OF WORKING Whole class or small groups

Only move children on to the **Challenge** if they have mastered the one-to-one correspondence of objects to numbers. If they need further support in this, continue to practise counting a variety of objects, and reinforce this learning before exposing them to the variation.

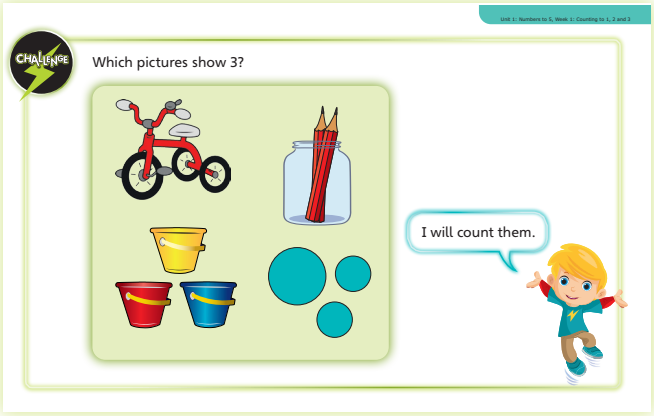
IN FOCUS This **Challenge** focuses on examples and non-examples of 3, and the fact that 3 can look different but still be 3. Use this activity to check that children are able to identify 3 when shown a variety of representations and orientations.

ASK

- *Have you found all the 3s in the picture? Are you sure?* [Guide children towards the wheels on the tricycle if they haven't counted those yet.]
- *Which picture doesn't show 3?*
- *What's the same and what's different about the pictures? Which picture is the odd one out?* [This could be any of them, but children should offer justifications for their choices.]

STRENGTHEN In small groups, make 3 using cubes. Move the cubes further apart. Ask: *Is it still 3? How do you know?* Put the cubes in different positions and use different colours and sizes of cubes to strengthen understanding.

DEEPEN Encourage children to become number detectives. Ask them to walk around the classroom and find objects in groups of 2 or 3. Refer to the **Explore** section on page 26 for activity ideas.



Day 5

Learning focus

Counting to 3 using abstraction

Practical activities

WAYS OF WORKING Whole class or small groups

IN FOCUS These activities introduce the numbers 1, 2 and 3 as an abstract concept. Encourage children to think about how they know a number is 1, 2 or 3 if they cannot see it or touch it.

GET ACTIVE **1, 2, 3**

Link back to the song in the **Starter**. Talk to children about the second verse. Ask: *If I clap, can you tell me how many claps there are?* Experiment with a different number of claps (up to 3). Vary the pause between the claps. Clap, pause for a few seconds and then clap twice. Ask: *How many claps now?* Next, ask children to close their eyes and say out loud the number of claps you make. Encourage some of the children to take turns being the ones to clap while the rest of the class close their eyes and say the number of claps out loud.

How many did I drop?

Find an empty tin or other metal container and slowly drop some coins into it (up to 3). Ask: *How many did I drop? How do you know?* Add variation by changing the number of coins you drop, and by varying the pause between the drops.

Feely bag

Place up to 3 everyday items into an opaque feely bag. Tell children that you have some objects in the bag and their challenge is to work out how many there are. Children should place their hands into the bag and feel the objects in order to count them. Children should move the objects around in the bag, or hold them in one of their hands in order to count how many there are. You could use objects that are different textures to help children avoid counting the same object twice.

Reflect: Journal 2

WAYS OF WORKING Independent thinking

IN FOCUS The focus of this **Reflect** activity is to review learning that has taken place this week. Can children confidently demonstrate their understanding of 3? Encourage them to place 3 physical objects on the page.

STRENGTHEN Use **Strengthen** ideas from the **Challenge** activity, and activities from **Explore**, to help embed ideas for children who have not yet mastered this concept. Keep practising 1, 2, 3 throughout the week to reinforce the language in a range of familiar contexts. Look out for children who still need to touch each object and have not started to subitise the number 3.

MASTERY CHECKPOINT **Children who have mastered this concept** can recognise and represent 3, following models that have been covered in the lesson.

Children who have not yet mastered this concept can recognise 3, but cannot necessarily recreate it. Look at a range of photographs: can they pick 1, 2 or 3 things from them?

Children who fully understand this concept may want to recreate 3 in a variety of ways.

Counting to 4

Learning focus

This week, children will build on their knowledge of counting to 3, by counting to 4. They will link the skill of counting 4 concrete objects to the pictorial representation of 4, and then to the abstract numeral 4. The five frame is introduced for the first time.

Small steps

- Previous step: Counting to 1, 2 and 3
- **This step: Counting to 4**
- Next step: Counting to 5

COMMON MISCONCEPTIONS

Children may still count too quickly, and not focus on the one-to-one correspondence of counting each object, resulting in either missing numbers in the sequence, miscounting or not recognising that the last number said is the number of objects. Ask:

- *How many are there? Can you count them all? What number are you going to start counting from?*
- *What was the last number you said? What number comes after …?*
- *Can you move the object or pick it up when you count it?*

KEY LANGUAGE

In lesson: one, two, three, four, 1, 2, 3, 4, cubes, how many, five frame

Other language to be used by the teacher: count, forwards, next, after, total, altogether, number

STRUCTURES AND REPRESENTATIONS

multilink cubes, five frames

RESOURCES

Mandatory: multilink cubes, objects to count, five frames

Optional: digit cards, groups of countable objects, including natural objects, paper, pens, large printed numbers 1–4 (photocopiables 2–5), role-play toys, pictures of butterflies

EXPLORE

Taking every opportunity throughout the school day to build and reinforce mathematical concepts gives children's learning purpose and meaning in the wider context of their lives.

ACTIVITY	AREA	DESCRIPTION	RESOURCES
Match the number	Classroom	Provide large laminated numerals 1–4. Encourage children to collect groups of 1, 2, 3 or 4 objects from around the classroom or the outside area. Ask them to place their collections with the correct number card.	Large printed numbers 1–4, variety of objects to collect
Collect 4	Outside	Children collect 4 natural objects, such as fallen leaves or conkers.	Items from nature
Groups of 4	Classroom	Encourage children to play and work in groups of 4. Ask: *How many children need to be in your group? How many children are in your group?*	Paper, pens
Set the table	Home corner	Ask children to set the table for 4 children. Ask: *How many plates will you need? How many forks? Can you get 4 cups?*	Role-play toys

Day 1

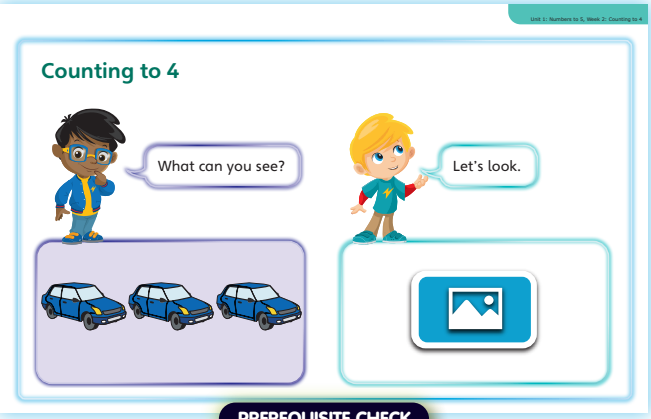
Learning focus

Stable order of counting to 4

Before you teach

- Can children count to 3?
- Can children count up to 3 objects reliably?
- Are children confident with resources and representations used in Week 1?

Starter



PREREQUISITE CHECK

PREREQUISITE CHECK Check that children can reliably count the 3 cars.

WAYS OF WORKING Whole class

Provide children with toy cars to count if needed.

IN FOCUS This **Prerequisite check** revisits stable order of counting to 3.

ASK

- *How many cars are there?*
- *How can you count them?*

STIMULUS

STIMULUS Photograph prompting a guided activity

The photograph shows 4 autumnal leaves on the grass. Encourage discussion about where children might see this in real life in the hope that this will lead to them looking for and counting autumnal objects in the outdoor provision or at playtimes.

WAYS OF WORKING Whole class

IN FOCUS This activity offers a good opportunity to stimulate the stable order of counting to 4.

ASK

- *What does 'how many' mean?*
- *Where are the leaves? Can you point to them?*
- *How are you going to count the leaves?*
- *What number do you start counting at?*
- *What number comes after …?*

GET ACTIVE Go outside and find leaves to match the image.

Ask: *What other autumnal items can you find? Can you count them?*

Day 2

Learning focus

One-to-one correspondence to 4

Discover

WAYS OF WORKING Whole class or small groups

IN FOCUS Reinforce the stable order of counting by continuing to practise the skill of one-to-one correspondence, which will help children when they start working with higher numbers.

Discover also focuses on the cardinality of 4: that 4 is the last number you say in the count, so shows how many there are. Children are encouraged to be able to see 4 without having to count (subitising), by looking at different representations of 4.

ASK

- *How can you count the leaves?*
- *What else can you see in the picture?*
- *How many ladybirds are there? How many spots does the ladybird have? How did you count them? Did you need to count each spot? Can you count by looking, without counting each one?*
- *How many butterflies are there? How do you know? Does it matter that they are different sizes?*

DEEPEN Encourage children to find different things around the classroom that represent 4 and compare them with a partner's collection.

Share

WAYS OF WORKING Whole class

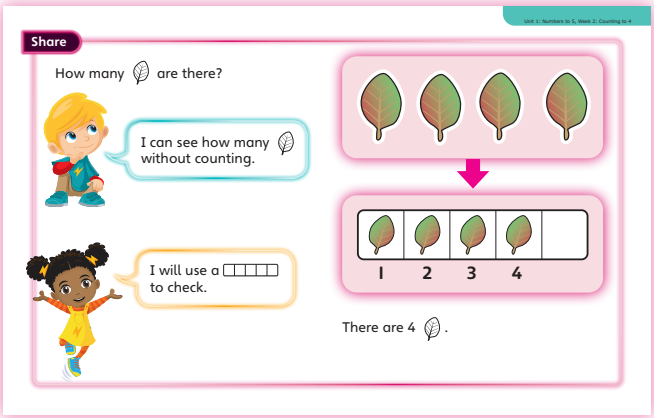
IN FOCUS The abstract numerals to 3 are revisited, continuing with the abstract numeral 4. Children are introduced to the five frame to represent amounts for the first time.

ASK

- *What number do you start counting on? What number do you finish counting on? So, how many leaves are there?*
- *Can you see how many leaves there are without counting each one?*
- *How does the five frame help you to count the number of leaves?*

STRENGTHEN Use actual leaves to support counting. Encourage children to touch each leaf as they count to reinforce one-to-one correspondence of numbers.

DEEPEN Encourage reasoning skills in this session by asking children: *Are you counting forwards or backwards? How do you know? When you count the number of leaves out loud, is the last number you say the total number? Show me. How do you know?*



GET ACTIVE Go outside and ask children to collect groups of 2, 3 or 4 objects, such as fallen leaves or conkers. Count together, count in pairs, count forwards, count backwards. Match the amount in each group to a digit card. Mix the digit cards up and ask children to put them back in the right places.

Day 3

Learning focus

Cardinality to 4

Think together

WAYS OF WORKING Whole class or small groups

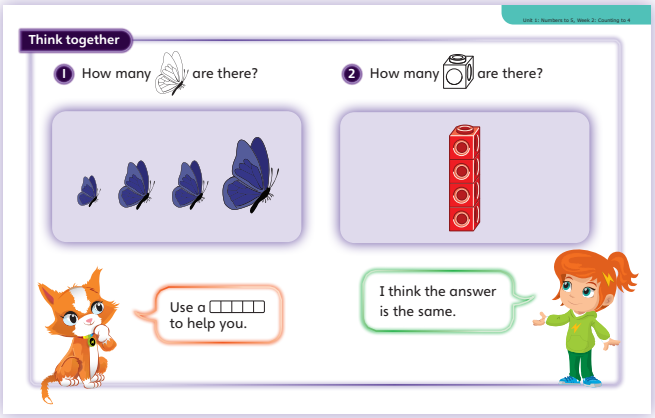
Give children a five frame and pictures of butterflies for Question 1 and cubes for Question 2.

IN FOCUS Cardinality of numbers: understanding that the last number used to count a group of objects represents how many are in the group.

ASK

- Question 1: *Can you remember what 'how many' means? What do you need to do to find the answer? Does it matter that the butterflies are different sizes? Why not? Can you show the butterflies on a five frame?*
- Question 2: *How many cubes are there? How do you know? Does it matter that they are one on top of the other? Show this with your cubes. Can you show the cubes on a five frame?*

STRENGTHEN Focus on saying the numbers out loud as you count to reinforce that the last number children say in a count is the total amount. Give as many opportunities to use the five frame as possible, choosing different real life objects to put on the five frame to count.



DEEPEN Extend children's thinking by using similar objects with slight variation, for example: 3 red cubes and 1 yellow cube. Ask: *How many cubes are there? Does it matter what colour the cubes are? What if 2 are red and 2 are blue, are there still 4? What if you line them up like this* (vertically), *or this* (in a 2 × 2 array)*? How do you know that the total amount stays the same?* [None have been added or removed.]

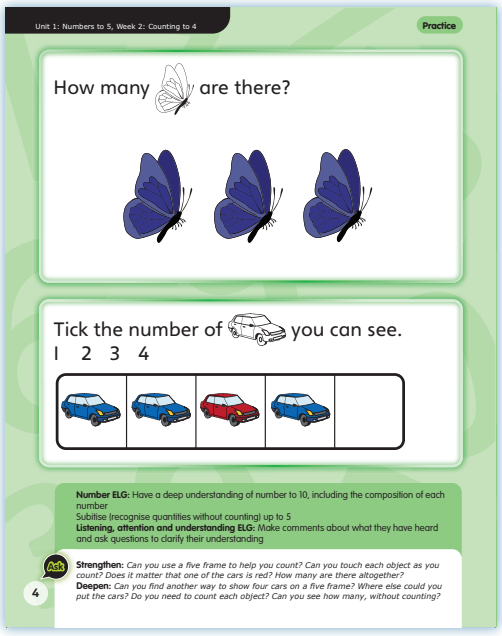
Practice: Journal 1

WAYS OF WORKING Independent thinking

IN FOCUS In the first part of the **Practice** activity, children use pictures of butterflies to count how many altogether. In the second part, children look at different ways to represent numbers on a five frame.

In the second part, children look at different ways to represent numbers on a five frame and are given the opportunity to match quantities to numerals. Children should identify the number of cars then recognise the corresponding numeral.

MASTERY CHECKPOINT Can children count to 4 accurately? Can children use the five frame to represent the objects? Do children recognise that the final number in the count is the total? Can children record the total correctly? Can children read the numerals 1 to 4 and know what each represents?



Day 4

Learning focus

Representations of 4

Challenge

WAYS OF WORKING Whole class or pairs
Guide children who need more support.

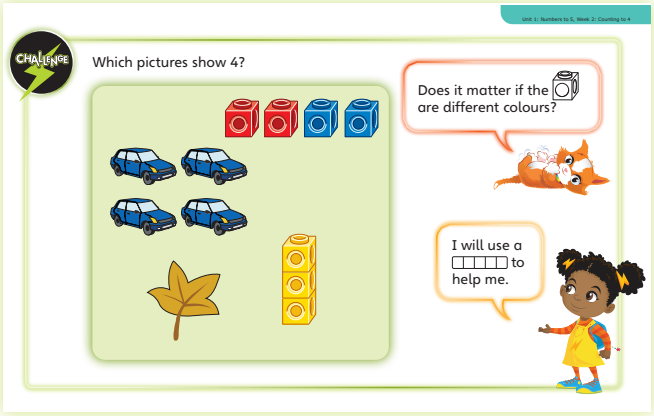
IN FOCUS The focus of this **Challenge** is for children to identify 4 from examples and non-examples of 4 and to familiarise them with the concept that 4 can look different but still be 4. This activity enables children to identify 4 using a variety of representations and orientations, and prompts them to 'see' 4 (subitising), rather than always having to count 4 things.

ASK

- *Have you found all the 4s in the picture? Are you sure?* [Guide children towards the points on the leaf if they have not counted those yet.]
- *Does it matter what colour the cubes are? If each cube is a different colour, is this still 4? What about if you move them into different places – is this still 4? How do you know?*
- *Can you see 4 in any of these pictures, without having to count each object? Show me where.*

DEEPEN Encourage children to be number 4 detectives. Go around the classroom in groups of 4 and identify objects that are in 4s. Children take photos of, or put labels on, the objects they find.

Embed understanding of order irrelevance: that 4 of something is still 4, whichever order it is presented in. Use the **Five frame teaching tool** to present objects in different variations, for example, different colours or occupying different positions. Ask: *Is this still 4?* [Change the colour of one object.] *Is this still 4?* [Move an object to a different position on the five frame.] *How many now?*



Day 5

Learning focus

Counting to 4 using abstraction

Practical activities

WAYS OF WORKING Whole class

IN FOCUS **Practical activities** can introduce the number 4 as an abstract concept. It is important that children make the link from the concrete and pictorial representations of an amount to the numeral '4' that represents the amount, and then the ways in which this amount can be represented in abstract form, for example, by making 4 claps.

GET ACTIVE **Listen to me clap**

Listen to me clap [clap 4 times]. *How many claps did I do? Can you clap 4 times?* Vary the speed of claps and the pauses between. Ask: *Is this still 4?* Ask children to perform other physical activities such as hopping, marching, spinning, jumping and waving. Each action should be performed up to 4 times and with varying speeds and pauses between.

Let's move!

As a group, decide on a number of exercises that you can complete e.g. star jumps, ski jumps, bunny hops. Tell the children that, on the first whistle, they must all begin their chosen exercise. Whilst performing the exercises, the group should count aloud how many they complete. Tell the children that, on the second whistle, they must stop and rest. Give children enough time to complete between 1 and 4 of each exercise before blowing the second whistle.

Reflect: Journal 2

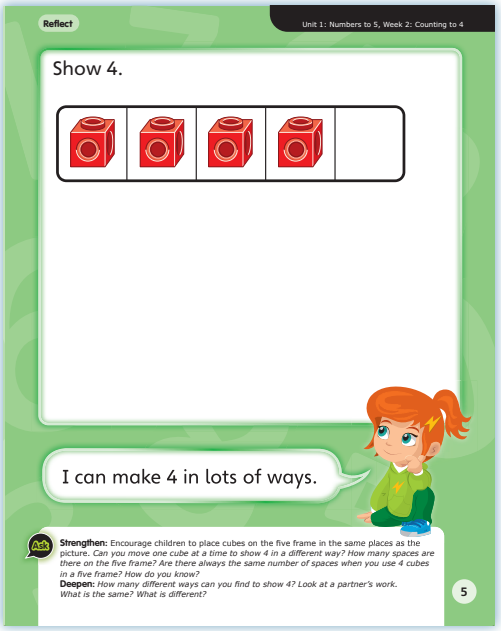
WAYS OF WORKING Independent thinking

IN FOCUS This activity gives children the opportunity to investigate the different ways they can make 4 on a five frame. Prompt children to represent the problem using cubes on a blank five frame. Next, encourage them to use a systematic approach to show all the ways to show 4 on a five frame. Ask: *Can you move just one cube to a different space? Now move a different cube.*

MASTERY CHECKPOINT **Children who have mastered this concept** can count reliably up to 4 objects and show 4 in a variety of ways using representations and resources used throughout the week.

Children who have not yet mastered this concept need support and scaffolding to show 4 and rely on resources and representations used throughout the week.

Children who fully understand this concept may want to show 4 in a variety of ways using a range of the resources and pictures used throughout the week and examples of their own. They might talk about 4 in the wider world, for example, objects in the classroom, things at home, their age, the number of pets they have and so on.



Counting to 5

Learning focus

This week, children will learn to count to 5 using the counting principles they developed in Week 1 and Week 2. Children will represent numbers up to 5 in concrete and pictorial ways as well as linking an amount to the numerals 1, 2, 3, 4 and 5.

Small steps

- Previous step: Counting to 4
- **This step: Counting to 5**
- Next step: Comparing quantities of identical objects

COMMON MISCONCEPTIONS

Children may count too few or too many. Counting the same object more than once is common. Children should be encouraged to line up objects when counting and touch each one as they count. A five frame can help structure and scaffold a child's counting to 5. Ask:

- *How could you check to make sure you counted the right number?*

KEY LANGUAGE

In lesson: 1, 2, 3, 4, 5, one, two, three, four, five, how many, count/counting

Other language to be used by the teacher: same, different, arrange

STRUCTURES AND REPRESENTATIONS

five frames, multilink cubes

RESOURCES

Mandatory: five frames, multilink cubes, candles, dice

Optional: teddies, plastic plates, cups and cutlery, party hats, party bags, toy food, pieces of fruit, hoop, bean bags, birthday cards, playdough, skipping ropes, string, chalk

EXPLORE

Taking every opportunity throughout the school day to build and reinforce mathematical concepts gives children's learning purpose and meaning in the wider context of their lives.

ACTIVITY	AREA	DESCRIPTION	RESOURCES
Birthday party	Classroom	Set up items for children to role-play a birthday party. Use teddies so children can count out party hats or party bags and put up to 5 items in each bag.	Teddies, plates, cups, food, party hats, party bags
A table set for 5	Home corner	Children set the table for 5 people by counting out 5 plates, cups and a piece of fruit per plate.	5 plates, 5 cups, pieces of fruit
Bean bags in a hoop	Outside	Play a game with a hoop and 5 bean bags. Ask: *Can you throw the 5 bean bags into the hoop? How many bean bags did you get in the hoop?*	Hoop, 5 bean bags

Day 1

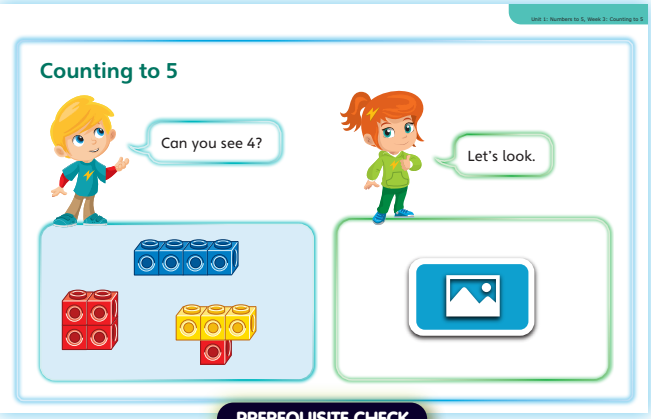
Learning focus

Stable order of counting to 5

Before you teach

- What resources will you provide to support children counting from a picture or with a rhyme?
- How will you provide scaffolding to help children relate amounts of concrete materials to abstract numerals?
- Consider how counting can be incorporated into daily routines to support children's learning.

Starter



PREREQUISITE CHECK

PREREQUISITE CHECK Can children identify that all the models show 4, even though they are arranged differently?

WAYS OF WORKING Whole class

Where possible, give children access to cubes so that they can replicate the models on the **Online Flashcard**.

IN FOCUS This **Prerequisite check** practises the skill of reliably counting 4 objects. Children may be able to 'see' 4 (subitising) rather than having to count.

ASK

- *How many cubes are there? Does it matter that some of the cubes are different colours? Does it matter that some are shown in different shapes?*

STIMULUS

STIMULUS Photograph prompting a guided activity

The photograph shows a birthday cake with 5 candles, and a birthday card with the number 5 on the front. Birthdays are a great context for introducing the concept of 5, as many children will be familiar with birthdays and many of them will be turning 5 during the year.

WAYS OF WORKING Whole class

Set up 5 teddies in a row with a birthday card in an envelope in the middle. Have a birthday cake, candles, party bags and party hats to help set the scene. Open the card and reveal that it is a 5th birthday card. Explain that you need to put enough candles on the cake for the teddy's birthday.

IN FOCUS The focus of this **Stimulus** is to build confidence in the one-to-one correspondence of counting to 5, using the rule of cardinality (that the last number you say is the total amount). Practise counting groups of objects up to 5 out loud to reinforce this.

ASK

- *What number is on the card? Who else is 5? Is anyone going to be 5 soon?*
- *How many candles do you need for the cake? Can you count them out?*
- *Can you show me how many candles you need on your fingers?*

GET ACTIVE Make playdough birthday cakes with children – one cake for each small group of children. Give each group a range of birthday cards with different numbers on them from 1–5. Children choose a card and put the correct number of candles on a playdough cake to match the card.

Day 2

Learning focus

One-to-one correspondence to 5

Discover

WAYS OF WORKING Whole class or small groups
Ensure candles and five frames are available to support counting.

IN FOCUS The focus of this **Discover** is to use the familiar 5th birthday party setting to give children many opportunities to see and count up to 5.

ASK

- *How can you count the candles? Can you show me on your fingers?*
- *What else in the picture can you count? How many children (hats, balloons) are there?*
- *Can you see how many balloons there are, without counting each one?*

STRENGTHEN Use 5 children or teddies to recreate the **Discover** picture. Encourage children to set the table for the party. Ask: *How many plates do you need? Can you count them out one by one?* Repeat with other items and count them out onto the table.

DEEPEN To extend thinking in this session, prompt children to look at the **Discover** picture again. Ask: *Are there enough balloons for each child? How could you find out?* Use 5 children or 5 teddies to represent children in the picture and match each balloon to a child.

Share

WAYS OF WORKING Whole class

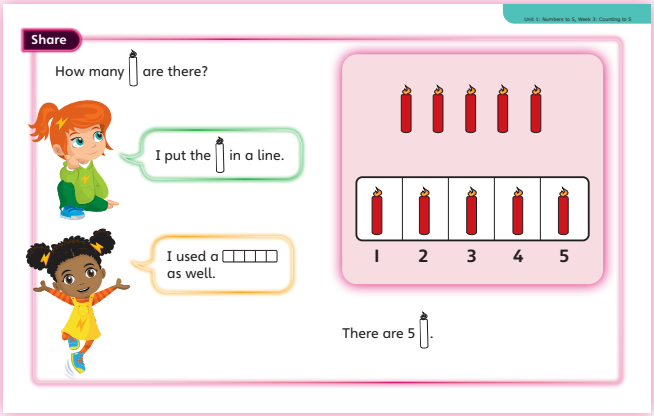
IN FOCUS Children represent 5 using candles and use a five frame to scaffold their counting. Eventually children will make the link between a five frame and the amount 5, supporting their ability to 'see' an amount represented in the five frame without needing to count out every object.

ASK

- *How does a five frame help you to count the candles?*
- *Can you fit any more candles in the five frame?*

STRENGTHEN Use a five frame and real objects to represent the pictures. Encourage children to touch each item as they count. Ask children to count backwards from 5 using the items in the five frame.

DEEPEN Develop children's counting by asking them to count in specific orders. Show five candles where one is slightly different. Say: *This candle is our special candle.* Can children count the candles making the special one number three or number five? Ask: *Are there always 5 candles, no matter where the special one is placed? How do you know?* [The five frame is full, we have not taken any away or added any more.] *Count backwards starting with number 5.*



GET ACTIVE Give children a party bag each and ask them to find and count out up to 5 objects to put into the bag. Ask them to discuss with a partner which items they have chosen. Ask: *How do you know you have 5?* Ask some children to show the class what they put in their bag. Encourage everyone to count aloud as the objects are taken out of the bag.

Day 3

Learning focus

Order irrelevance to 5

Think together

WAYS OF WORKING Whole class or small groups

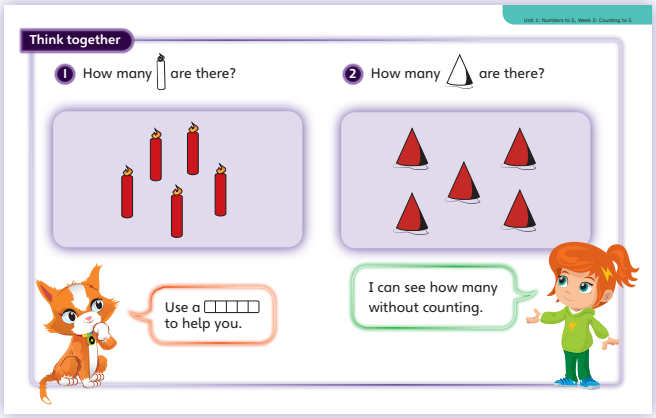
Ensure five frames and dice are available for this **Think together**. Ensure children are familiar with the five frame and how it is used before starting this session.

IN FOCUS The learning focus is order irrelevance, so concentrate on counting the candles (Question 1) several times, starting with a different one each time to ensure that children understand that there are still 5. In Question 2 the hats are displayed in the traditional dice formation for 5, encouraging children to 'see' 5 without counting, but check by starting at different places to count.

ASK

- Question 1: *Can you say the number of candles out loud as you count? How many candles are there?*
- Question 2: *How many hats are there? Which dice face has the same pattern? How does this help you to know how many hats there are?*

STRENGTHEN Make a large five frame on the floor using skipping ropes or string. Using 5 plates – 4 that are the same colour or size and 1 that is different – encourage children to count out the plates into the five frame making



the 'different plate' a different number in the count each time. Ask: *Can you make this plate number 3 in the count? Now make it number 4.*

DEEPEN Use the **Multilink cube teaching tool** to show cubes in traditional dice arrangements and the **Five frames teaching tool** to show different arrangements on a five frame. Can children show how many by holding up the same number on their fingers? This activity encourages children to recognise representations of numbers to 5, without having to count each item every time.

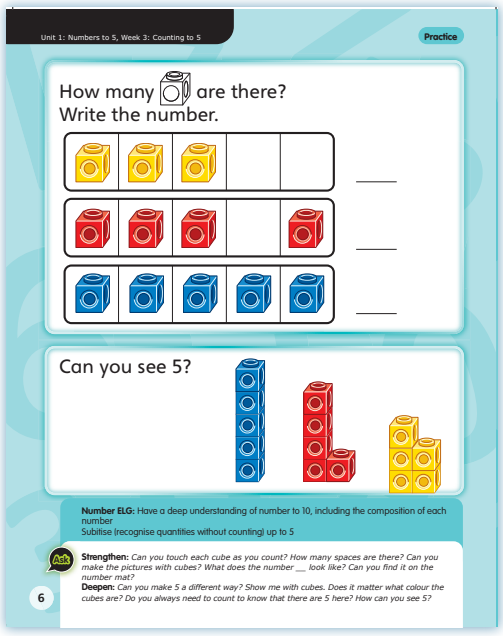
Practice: Journal 1

WAYS OF WORKING Independent thinking

IN FOCUS The first part of the **Practice** activity focuses on the five frame, showing examples of 3, 4 and 5. Draw children's attention to the empty cells in the five frame for 3 and 4 and that for 5 it is full. The second part encourages children to begin subitising (identifying an amount by looking at it, rather than needing to count each item). Allow them to build the models using 5 multilink cubes.

The second question also gives children the opportunity to recognise and/or write numerals. Some children may require a numeral mat to find the relevant numeral and copy the shape.

MASTERY CHECKPOINT Look at the different ways that children represent 5. Can they count out 5 each time or do they move the cubes they have counted out, understanding that the number does not change even though it is in a different arrangement? Can any children subitise without needing to count out each cube?

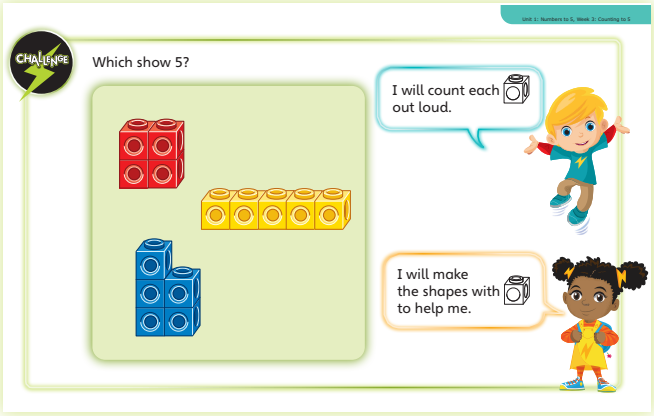


Day 4

Learning focus

Representations of 5

Challenge



WAYS OF WORKING Whole class or small groups

Prepare a range of resources for this session, including cubes and five frames. For any children still mastering the learning from **Think together**, choose different objects from the classroom and place them on a large five frame. Model to children how moving the objects doesn't change how many objects there are altogether. Question them on this as you carry out the activity to stimulate their thinking.

IN FOCUS The focus of this **Challenge** activity is to count numbers up to and including 5 in different formations, to ensure that children are really secure with counting to 5. The variation in this **Challenge** helps to address the misconception that 5 is only 5 if it is presented in a certain way, and should help to identify children who need further support with this concept. Children need to be confident counting to 5, however it is represented.

ASK

- *Which of the pictures shows 5? Which picture does not show 5? How do you know?*
- *Can you use cubes to make each image yourself?*

STRENGTHEN Create a giant five frame for children to stand in (using chalk, string or skipping ropes). Ask 2 children to stand in it. Move children around in the frame, asking each time: *How many are there now?* Repeat with 3, 4 or 5 children, varying their positions in the five frame. It is vital that children see the order irrelevance here, so keep asking them how many and how they know.

DEEPEN Use the **Five frame teaching tool** and place 1, 2, 3, 4 or 5 counters into the five frame. Display the five frame just long enough for children to count how many, then hide it on the screen. Ask children to recreate what they saw on individual five frames.

Day 5

Learning focus

Counting to 5 using abstraction

Practical activities

WAYS OF WORKING Whole class or small groups

IN FOCUS These activities build on children's understanding of counting to 5, by counting something abstract (something they cannot see). This is an important next step in their understanding of 5.

GET ACTIVE **How many claps?**
Explain that you are going to clap up to 5 times and that you want children to show, on their fingers, how many claps they heard. Ask children to close their eyes. Clap up to 5 times. Repeat, varying the number of claps.

Pass the parcel
Prepare a game of pass the parcel where each layer reveals an instruction or picture clue to do something to demonstrate children's understanding of numbers up to 5: jump 4 times, clap 5 times, spin 3 times, hop 5 times. Children may need help reading the instructions, but ask them to read the numerals themselves.

Five frame flash
Give each child a five frame and 5 counters. Create a number on the five frame but do not let the children see. Reveal your five frame for 5 seconds then recover. Ask children to recreate your five frame. Once the children are familiar with the game, reduce the amount of time for which the children can see your five frame, forcing them to subitise rather than count. Repeat with different examples, placing the counters in a variety of patterns.

Reflect: Journal 2

WAYS OF WORKING Independent thinking

IN FOCUS Children **Reflect** on their learning by drawing a picture of a '5 party'. This could include a variety of pictorial representations of 5, such as 5 balloons, 5 candles, 5 plates, 5 party hats. Use the **Strengthen** prompts on the journal page to support children who need help getting started. Use the **Deepen** prompts to extend and challenge the thinking of children who complete this activity with little support.

MASTERY CHECKPOINT **Children who have mastered this concept** can confidently count up to 5 and can recognise and represent 5, following models that have been covered in the lesson.

Children who have not yet mastered this concept can recognise 5, but cannot necessarily recreate it themselves without support.

Children who fully understand this concept may want to count up to 5 and backwards from 5 to 1, and can recreate 5 in a variety of ways.