Autumn Block 5

1, 2, 3, 4, 5

White Rose MATHS

Teacher guidance

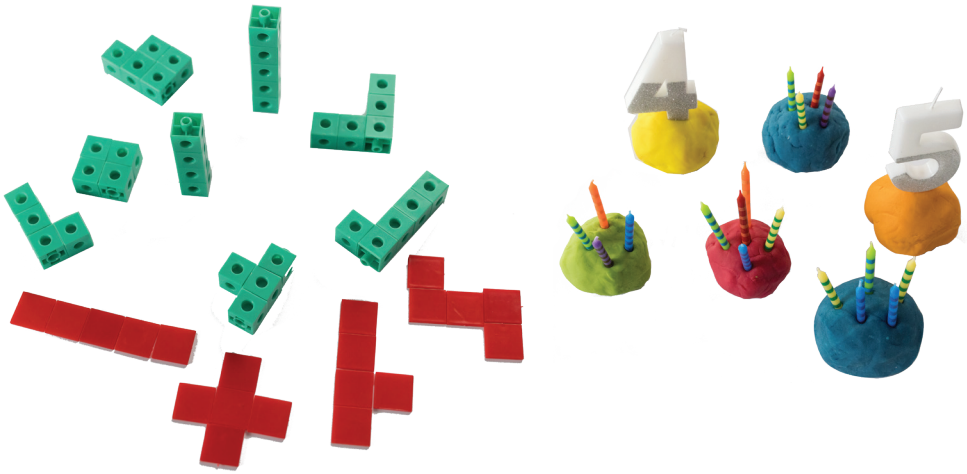
Key books

- *Witches Four* by Marc Brown
- *Five Little Fiends* by Sarah Dyer
- *Pete the Cat and his Four Groovy Buttons* by Eric Litwin
- *Kipper's Birthday* by Mick Inkpen
- *The Very Hungry Caterpillar* by Eric Carle
- *Stella to Earth!* by Simon Puttock and Philip Hopman
- *Anno's Counting Book* by Mitsumasa Anno

Top tips

- Having a rhyme area in the classroom enables children to practise their skills with all aspects of this block. It will also help to embed the counting principles. Children love to act out rhymes, especially if given props to do so.
- Collections of five characters, such as frogs, elephants and bears, as toys (or as a laminated printable) are resources that can be reused year after year.
- Birthdays are a great way of supporting children's knowledge of the numbers to 5 as many children turn 5 in Reception year.

Key resources



Small steps

Step 1	Find 4 and 5
Step 2	Subitise 4 and 5
Step 3	Represent 4 and 5
Step 4	1 more
Step 5	1 less
Step 6	Composition of 4 and 5
Step 7	Composition of 1–5

Find 4 and 5

Notes and guidance

In this small step, children will explore finding different representations of 4 and 5. Ensure that children can confidently say the number names 'one' to 'five'. Once they can do this, encourage them to match the verbal number names to numerals and quantities.

Throughout this small step, support children with the counting principles. Encourage them to count 4 and 5 objects by touching each object as they count to support one-to-one correspondence. Support children to recognise that the final number they say tells them the total number of objects in the set, to develop their understanding of cardinality.

Share stories and pictures which show 4 and 5 and count the groups. Encourage children to find objects in provision and notice 4 and 5 in the environment. A number hunt around the school or outdoor area is a great activity to support this.

Books

- *Witches Four* by Marc Brown
- *Five Little Fiends* by Sarah Dyer

Key questions

- How many are there altogether?
- How many did you count?
- How many different ways can you find 4/5?
- Where can you see 4/5?

Possible sentence stems

- I counted _____
- There are 4/5 _____.
- There are _____ altogether.
- I can see...

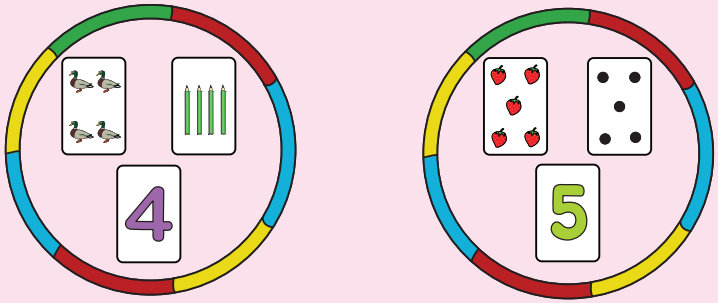
Links to the curriculum

- *Development Matters* – Reception – Link the number symbol (numeral) with its cardinal number value.
- *Birth to 5 Matters* – Range 5 – Points or touches (tags) each item, saying one number for each item, using the stable order of 1, 2, 3, 4, 5.

Find 4 and 5

Adult-led learning

Provide children with a range of picture cards showing different representations of 4 and 5 and two hoops.



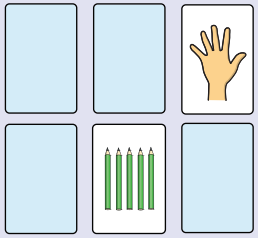
Prompt children to sort the cards and place them in the correct hoop.

Place six picture cards showing 4 or 5 items face-down on the table. Children take turns to turn over two cards each.

If the two cards show the same quantity, they can keep the cards. Otherwise, they turn the cards face-down again.

The winner is the child with the most cards when all the cards have been taken.

Once children know the rules, leave out resources for them to lead their own game.

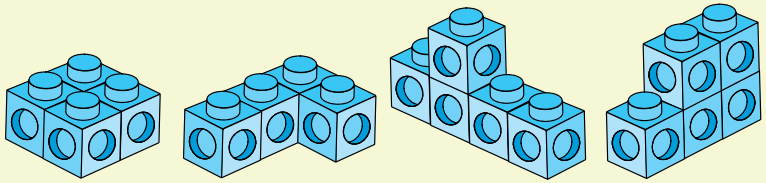


Read stories and show children the illustrations from books such as *Witches Four* by Marc Brown and *Five Little Fiends* by Sarah Dyer.

Children look at the pictures and identify where they can see the different representations of 4 and 5

Children then create their own collections to represent 4 and 5

Join 4 or 5 multilink cubes together in different ways. Place them in a feely bag.



Ask children to find a 4-cube shape without looking.

How do they know whether it has 4 or 5 cubes?

Subitise 4 and 5

Notes and guidance

In this small step, children continue to develop the skill of perceptual subitising. This form of subitising refers to instantly recognising the number of objects or items in a group without needing to count them.

Encourage children to subitise groups of 4 and 5 items. This will allow them to develop an understanding of what each number looks like, and what it is made up of.

Use images and stories that include groups of 4 and 5 characters or objects and point out the groups. Talk about what children see and how they see it. Simple geometric shapes that are all the same size and the same colour, such as dots, are the easiest for children to subitise. Simple activities and games using dot patterns are ideal. It is important that children see these in different arrangements, so that they do not think that 4 is always in a square as it is on a dice, for example.

Key questions

- How many can you see?

  How do you know?
- How many are there in each group?
- What can you show me?
- What can you see?

Possible sentence stems

- There are _____ dots altogether.
- There are 4/5 _____.
- I can see _____ without counting.
- I can subitise _____

Books

- *Pete the Cat and his Four Groovy Buttons* by Eric Litwin

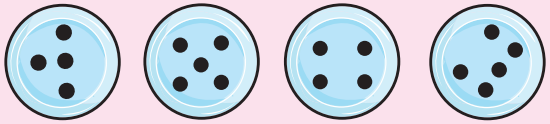
Links to the curriculum

- *Development Matters* – Reception – Subitise.
- *Birth to 5 Matters* – Range 6 – Engages in subitising numbers to four and maybe five.

Subitise 4 and 5

Adult-led learning

Hold up dot plates that show 4 and 5 in different arrangements. Ask children how many dots they see. Children show the correct number of fingers to match the dots.



Give children a dot plate each and encourage them to find someone with the same arrangement as them.

Share stories such as *Pete the Cat and his Four Groovy Buttons* by Eric Litwin with children. Encourage them to subitise and notice where they see 4 without having to count.

Show them a five frame with 4 or 5 buttons. Prompt them to copy it and explain how they know it is 4 or 5

Arrange the numerals 1–5 on cards around the outdoor area.

Give each child a swatter.

Hide a quantity of up to 5 bean bags under a bucket and then reveal.

Encourage children to subitise how many bean bags they can see and run to swat the correct number card.

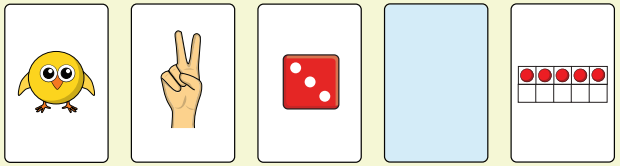
Provide children with picture cards from 1 to 5

Ask children to put the cards in order from 1 to 5

Prompt the group to close their eyes or turn away.

Turn over one of the cards to hide it.

Children look at the picture cards and identify which card is missing.



Represent 4 and 5

Notes and guidance

In this small step, children build on their learning from the earlier steps as they create their own representations of 4 and 5 using different objects. Provide opportunities for children to match their different representations to numerals.

Encourage children to count and subitise as a way of checking their representations. When counting, support children with the counting principles such as one-to-one correspondence, stable order and the cardinal principle.

Prompt children to represent up to 5 objects on a five frame. Support them to understand that if the frame has 1 empty space, there are 4 objects. If the frame is full, there are 5 objects. This is a good opportunity to link to children's birthdays, as they may be turning 5 years old soon.

Rhymes

- *1, 2, 3, 4, 5, Once I Caught a Fish Alive*

Books

- *Kipper's Birthday* by Mick Inkpen

Key questions

- How many are there? How many are there now?
- How many different ways can you show 4/5?
- How many did you count? How do you know?
- How many are there altogether?

Possible sentence stems

- There are 4/5 _____.
- I know there are _____ because...
- There are _____ altogether.
- I counted _____

Links to the curriculum

- *Development Matters* – Reception – Count objects, actions and sounds. Link the number symbol (numeral) with its cardinal number value.
- *Birth to 5 Matters* – Range 5 – Links numerals with amounts up to 5 and maybe beyond.

Represent 4 and 5

Adult-led learning

Provide children with interesting objects to count, such as shells. Ask children to count out 4 or 5 items and arrange them on the floor in front of them.

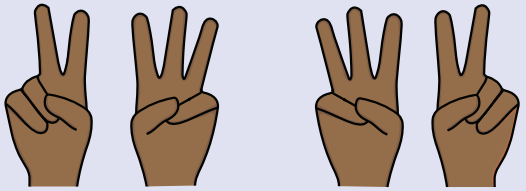
How many are there altogether? Does your group of 4 look the same as mine?

Encourage children to arrange their objects in a different pattern.

Prompt children to count to 5 on their fingers and count back from 5

Encourage children to show 4 or 5 using their fingers.
Is there more than one way?

Is it possible to show 4 or 5 using two hands rather than just one?



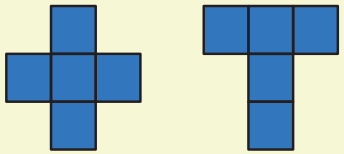
Make cakes out of dough and prompt children to place the correct number of candles in the cake for Kipper's birthday.

Have some birthday cards showing ages from 1 to 5, muddled up.

Encourage children to make cakes with the correct number of candles to match each birthday card.

Provide children with 4 or 5 square tiles.

Prompt them to place the tiles together to make different shapes.



How many different shapes can they make?

1 more

Notes and guidance

In this small step, children are introduced to the concept of 1 more, working with numbers up to 5

They begin to understand that as they count forwards, each number they say is 1 more than the previous number. Children notice how numbers increase in size when 1 more is added.

Prompt children to recognise that the order of the numbers when counting does not change. This is the stable order principle. Use a range of representations to support this understanding, including stories, songs and rhymes that include finding 1 more. Encourage children to represent the '1 more' pattern as they count, using manipulatives such as cubes to model this.

Rhymes

- *One Man Went to Mow*

Books

- *The Very Hungry Caterpillar* by Eric Carle

Key questions

- How many are there?
- How many are there now?
- What is 1 more than _____?
- What is the number after _____?

Possible sentence stems

- There are _____
- There are _____ altogether.
- _____ is 1 more than _____
- 1 more than _____ is _____

Links to the curriculum

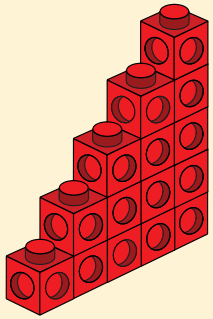
- *Development Matters* – Reception – Understand the 'one more than/one less than' relationship between consecutive numbers.
- *Birth to 5 Matters* – Range 5 – Beginning to recognise that each counting number is one more than the one before.

1 more

Adult-led learning

Read the story *The Very Hungry Caterpillar* by Eric Carle. Prompt children to notice that each day he eats 1 more item.

Encourage children to use cubes to represent the food he ate over the week and notice the '1 more' pattern.



Provide children with their own blank book with 5 pages. Children represent the '1 more' pattern by drawing their favourite food items.

Provide children with five frames, 1–5 number tracks and objects to count with.

Give children a number to make on their five frame.

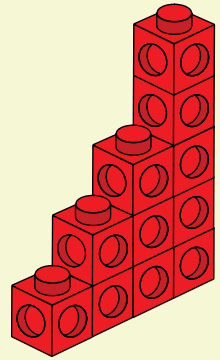
Prompt children to point to the number they have made on the number track. Encourage them to show 1 more. How many are there now?

Create a 'bus route' around the outdoor area with chalk and have different bus stops around the route.

Ask one child to stand at each stop. When the bus stops, one more child gets on the bus.

Encourage children to say how many are on the bus altogether and prompt them to see that there is '1 more' each time.

In the construction area, encourage children to build their own staircase towers. How many blocks have they used for each step?



Ask children to close their eyes and then take one of the towers away. Are they able to identify which tower is missing using the language 'one more'?

Children may also use the language 'one less'.

1 less

Notes and guidance

In this small step, children are introduced to the concept of 1 less, with the numbers up to 5

Children begin to understand that as we count back, each number is 1 less than the number before. Children should notice that the numbers get smaller because they are taking 1 away. They should recognise that the order of the numbers when counting does not change. This is the stable order principle.

Use stories, songs and rhymes that include finding 1 less. Encourage children to represent the '1 less' pattern as they count and use manipulatives such as cubes to show this. Support children to notice the '1 less' pattern as they play in provision.

Rhymes

- *Five Currant Buns*
- *Five Little Men in a Flying Saucer*

Books

- *Stella to Earth!* by Simon Puttock and Philip Hopman

Key questions

- How many are there?
- How many are there now?
- What is 1 less than _____?
- What is the number before _____?

Possible sentence stems

- There are _____
- There are _____ altogether.
- _____ is 1 less than _____
- 1 less than _____ is _____

Links to the curriculum

- *Development Matters* – Reception – Understand the 'one more than/one less than' relationship between consecutive numbers.
- *Birth to 5 Matters* – Range 5 – Positive relationships – Emphasise the *one more, one less* pattern in rhymes and traditional tales, asking children to predict the next number.

1 less

Adult-led learning

Sing and act out the rhyme *Five Currant Buns* together as a class.

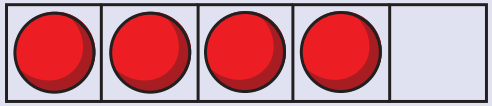
Pick 5 children to come and buy the buns. They give a 1 pence coin to the baker as they take the bun.

Stop at regular intervals to encourage children to notice that, as a bun is taken away, there is 1 less each time.

Model by using a five frame and counters. Start with 5 counters and remove 1 each time a bun is taken.

Model the rhyme *Five Little Men in a Flying Saucer* with children. Provide props for them to use to help them notice the '1 less' pattern.

Support children to build towers or use a five frame so they can see the amount decreasing.

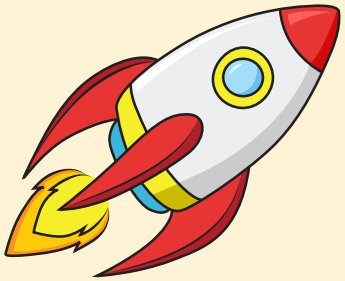


Encourage them to independently act out the rhyme.

After reading books such as *Stella to Earth!* by Simon Puttock and Philip Hopman, prompt children to pretend to be rockets and count backwards.

Encourage children to use their fingers as they count back to support them.

"5, 4, 3, 2, 1, blast off!"



With children, count 4 items into a bag.

Ask them to confirm how many there are in the bag.

Put 1 cube in or take 1 out.
How many are in the bag now?

Once children are confident in predicting 1 more and 1 less, this can be extended to 2 more or 2 less.

Encourage children to use their fingers or five frames to represent the hidden objects.

Composition of 4 and 5

Notes and guidance

In this small step, children are introduced to the idea that all numbers are made up of smaller numbers and that these are referred to as *parts*. Learning to see a whole number and its parts at the same time is a key development in children's number sense.

At this stage, give children practical opportunities to explore a range of ways to partition a whole number into two parts. Prompt them to find different ways, for example, 4 can be composed of 2 and 2 or 3 and 1

Although the focus of this step is on numbers to 5, children may choose to notice and explore the composition of greater numbers in their play.

Rhymes

- *Five Little Speckled Frogs*

Books

- *Anno's Counting Book* by Mitsumasa Anno

Key questions

- How many ways can you make 4/5?
- How can you show 4/5 in a different way?
- What parts can you see?
- What is the whole?

Possible sentence stems

- _____ is a part and _____ is a part.
- If _____ is a part, then the other part must be _____
- _____ is a part of _____
- The whole is _____

Links to the curriculum

- *Development Matters* – Reception – Explore the composition of numbers to 10.
- *Birth to 5 Matters* – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects.

Composition of 4 and 5

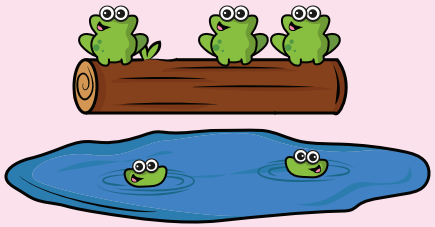
Adult-led learning

Act out the rhyme *Five Little Speckled Frogs* using props. Encourage children to talk about the parts that they can see each time.

How many frogs are on the log?

How many frogs are in the pool?

What is the whole?

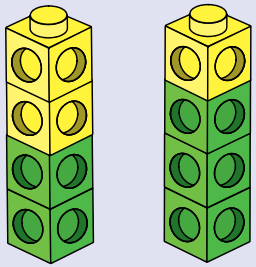


Use a five frame and double-sided counters to represent the frogs on the log in one colour and the frogs in the pool using the other colour.

Provide cubes in two different colours.

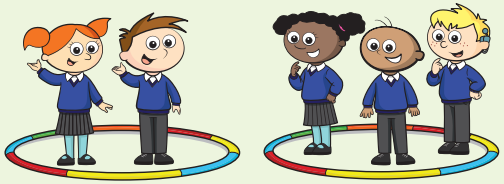
Ask children to build different towers of 4 or 5 using both colours.

Encourage children to compare the towers and talk about the parts that they can see.



Put children into groups of 4 or 5 and provide them with two hoops, labelled 'yes' and 'no'.

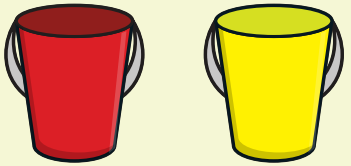
Ask children questions, for example, "Do you like apples?" Prompt children to move into the 'yes' or 'no' hoop.



How many children are in each hoop?

Hide 4 or 5 pebbles between two buckets.

Tell children how many pebbles there are altogether.



Prompt them to explore different possibilities of how many pebbles could be in each bucket.

How many different ways can they find?

To extend this, you could use three buckets.

Composition of 1–5

Notes and guidance

In this small step, children build on the learning from the previous step and progress onto exploring the composition of numbers 1 to 5

Children consolidate their understanding of numbers being made up of smaller numbers, and confidently talk about the parts they can see. They understand that these smaller numbers can be combined to make the whole.

Give children practical opportunities to partition numbers into two parts, in a range of contexts. Encourage children to find different ways to partition the same number.

Prompt children to represent the parts they see using concrete manipulatives or through mark-making.

Rhymes

- *Five Little Teddy Bears*

Books

- *Anno's Counting Book* by Mitsumasa Anno

Key questions

- How many ways can you make...?
- How can you show the same number in a different way?
- What parts can you see?
- What is the whole?

Possible sentence stems

- _____ is a part and _____ is a part.
- If _____ is a part, then the other part must be _____
- _____ is a part of _____
- The whole is _____

Links to the curriculum

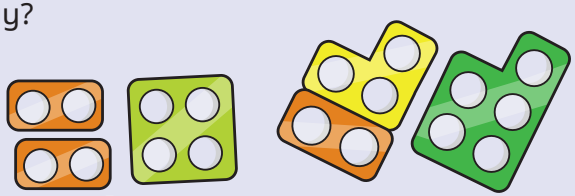
- *Development Matters* – Reception – Explore the composition of numbers to 10.
- *Birth to 5 Matters* – Range 6 – Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects.

Composition of 1–5

Adult-led learning

Give children a range of number shapes representing 1 to 5

Encourage them to investigate combining two smaller numbers to make a whole. Children could check by sitting the two parts on top of the whole number. Is there another way?

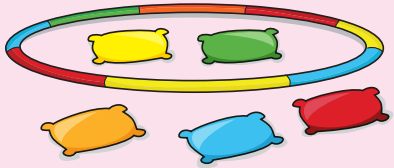


Explore pages representing 1 to 5 in texts such as *Anno's Counting Book* by Mitsumasa Anno. Prompt children to talk about the parts that they see on each page.

For example, when exploring 5, we can see 2 children on one page and 3 children on the other page.

Provide children with five beanbags and one hoop.

Ask children to select some of the beanbags: this number is the whole. Throw them towards the hoop. Encourage children to talk about the parts they can see.



How many beanbags land inside the hoop?
How many land outside?

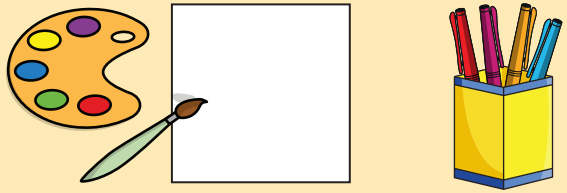
Act out the rhyme *Five Little Teddy Bears*.

Ask children to close their eyes while you hide some of the teddy bears under a blanket.

Prompt them to work out how many teddy bears are hidden. Provide children with manipulatives or encourage them to mark-make to help them explain how they know.

Continuous provision

Provide a range of collage and mark-making materials.



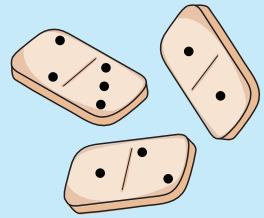
Prompt children to make their own picture cards for the numbers 4 and 5

Children can link these to their own interests.

Provide children with a large blank domino template. Children select a number card from 1 to 5

Prompt them to print the corresponding number of dots onto their domino using a dabber or sponge.

Encourage children to talk about how many dots they will put on each side of the domino to make the total.



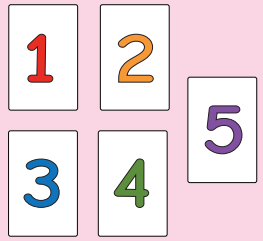
Provide children with buckets with the labels 1 to 5 on the front and a range of natural objects.

Encourage children to put the correct number of objects in each bucket.

Ask a friend to check that each bucket has the correct number.

Give each child a set of digit cards labelled 1–5 and a spinner labelled 1–4

Children spin the spinner.



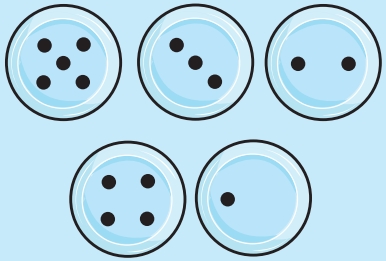
They choose to turn over the card that is either 1 more or 1 less than the number the spinner lands on.

The winner is the first person to turn over all of their cards.

End of block checkpoint

Checkpoint 1

Show children a range of dot plates with different arrangements of 1, 2, 3, 4 and 5 dots.



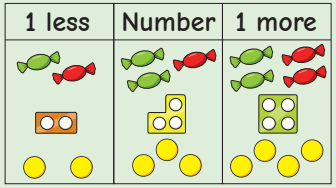
Are they able to subitise how many they can see and represent the amount on their fingers?

Is there more than one way to show the number using both their hands?

Checkpoint 2

Provide digit cards labelled from 1–5 and a range of objects to count with.

Prompt children to pick a digit card and represent the amount with objects.



Are they able to find 1 more and 1 less than the number using different representations?

Checkpoint 3

Lay a selection of dot plates showing 1–5 on the floor.

Show children a digit card from 1 to 5. Prompt them to take it in turns to find dot plates that make that number.