

Summer Block 1

To 20 and beyond

Teacher guidance



Key books

- *Anno's Counting Book* by Mitsumasa Anno
- *Monster Counting Book 1 to 20* by Frances Mackay
- *13 Ways to Eat a Fly* by Sue Heavenrich
- *The Real Princess* by Brenda Williams
- *One Moose, Twenty Mice* by Claire Beaton
- *20 Big Trucks in the Middle of the Street* by Mark Lee
- *Jack the Builder* by Stuart J. Murphy
- *Monster Math* by Anne Miranda
- *1 is One* by Tasha Tudor

Top tips

- Continue counting past 10, as the numbers just beyond can be the trickiest. Incorporate counting within your daily routine, such as counting children when lining up or the number of sleeps to a key event.
- Use a range of concrete manipulatives which vary in size, colour and position to support children when counting.
- Encourage children to notice numerals and quantities up to 20 in the classroom and outdoor environment.

Key resources



Small steps

Step 1

Build numbers beyond 10 (10–13)

Step 2

Continue patterns beyond 10 (10–13)

Step 3

Build numbers beyond 10 (14–20)

Step 4

Continue patterns beyond 10 (14–20)

Step 5

Verbal counting beyond 20

Step 6

Verbal counting patterns

Build numbers beyond 10 (10–13)

Notes and guidance

In this block, children become more familiar with numbers beyond 10 and the pattern (stable order) of numbers to 20 and beyond. Children will be familiar with larger numbers from daily routines such as counting children or the days in the month. This small step focuses on numbers beyond 10. First, ensure that children can say the numbers 11, 12 and 13 and support them to use one-to-one correspondence to count items beyond 10

Provide varied opportunities for building the numbers 10, 11, 12 and 13 to support children's understanding. Encourage children to play games that involve these numbers, and count on and back to improve children's knowledge of the stable order counting principle.



Rhymes

- *Sesame Street's Pinball Number Count*



Books

- *Anno's Counting Book* by Mitsumasa Anno
- *Monster Counting Book 1 to 20* by Frances Mackay

Key questions

- How will you build the number 10/11/12/13?
- Where can you find 10/11/12/13?
- What number have you built?
- What do you notice about that number?

Possible sentence stems

- I can see _____
- I can build _____
- 10/11/12/13 has ten and _____

Links to the curriculum

- *Development Matters* – Reception – Count beyond ten.
- *Birth to 5 Matters* – Range 6
 - Uses number names and symbols when comparing numbers, showing interest in large numbers
 - Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0

Build numbers beyond 10 (10–13)

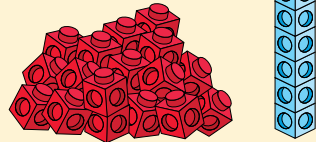
Adult-led learning



Read stories such as *Monster Counting Book 1 to 20* by Frances Mackay, focusing on the pages up to 13

Provide children with a range of different manipulatives such as number shapes and cubes. Prompt them to build numbers up to 13

As children build the numbers, encourage them to notice and talk about the number structures.

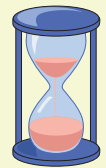
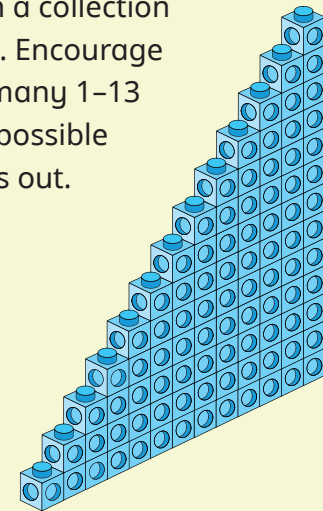


After reading the book *Anno's Counting Book* by Mitsumasa Anno with children, explore how the numbers build up across the pages, up to the number 12

Support children to then create their own page for the number 13



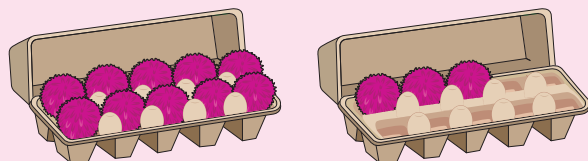
Provide children with a collection of cubes and a timer. Encourage children to build as many 1–13 staircase models as possible before the timer runs out.



Prompt children to count out loud and encourage them to notice the pattern of numbers.



In pairs, children take two empty, 10-hole egg boxes and fill one with loose parts. Child 1 closes their eyes while child 2 fills the other egg box with 1, 2 or 3 objects. Child 2 opens their eyes and substitutes the ten and counts on how many.



Continue patterns beyond 10 (10–13)

Notes and guidance

In this small step, children continue to build and notice patterns with numbers beyond 10 (up to 13). Provide opportunities for children to recognise that the numbers 1 to 3 repeat after every full ten. So, they have 1 ten and 1, 1 ten and 2, 1 ten and 3. It is important to embed this skill with numbers to 13 first, before going up to 20

Encourage children to count on and back from different starting points, to say what comes before or after a given number and to place numbers in order. Challenge children to notice 11, 12 and 13 in displays and stories. Use stories linked to interests to embed the stable order. Children enjoy correcting puppets who make counting errors or say the numbers incorrectly. Daily counting routines and games provide many opportunities to regularly count beyond 10



Rhymes

- *Sesame Street's Pinball Number Count*



Books

- *13 Ways to Eat a Fly* by Sue Heavenrich

Key questions

- What number comes after _____?
- What do you notice about that number?
- What pattern can you see?

Possible sentence stems

- I can see 1 ten and _____
- _____ and _____ makes _____
- _____ comes after _____

Links to the curriculum

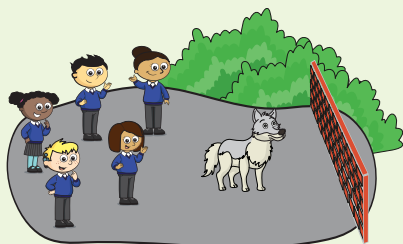
- *Development Matters* – Reception – Count beyond ten.
- *Birth to 5 Matters* – Range 6
 - Uses number names and symbols when comparing numbers, showing interest in large numbers
 - Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0
 - Increasingly confident at putting numerals in order 0 to 10 (ordinality)

Continue patterns beyond 10 (10–13)

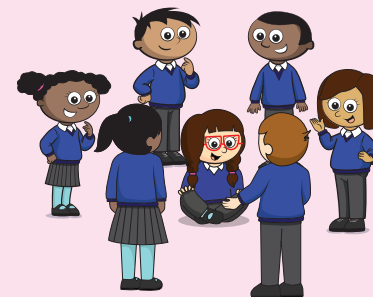
Adult-led learning



Play the game 'What's the time, Mr Wolf?' Pick one child to be the wolf and ask them to stand at one end of the outdoor area, facing the other way. All the other children stand at the other end. Children ask the wolf, "What's the time, Mr Wolf?" The wolf says a time, for example, "It is 11 o'clock." Support children to count and take 11 steps towards the wolf. Repeat for other numbers up to 12



Encourage children to stand in a circle. Choose a child to start counting aloud around the circle from zero. Each child in turn says the next number. The child who says the number 13 sits down in the middle of the circle. Continue counting from 0 to 13 around the circle until one person is left standing. This person is the winner.



Provide children with crates numbered 1 to 5 and a set of balls. Prompt children to aim and throw the balls at the crates. The crate the ball lands in is the number of points they score. Support children to make marks or use a tally to record their scores.



The first to score exactly 13 is the winner.



Provide children with a number track from 1 to 13, a dice labelled 1 to 3 and counters.



Encourage them to take it in turns to roll the dice and count on the corresponding number of spaces on the number track. What number do you need to roll next to get to 13?

Build numbers beyond 10 (14–20)

Notes and guidance

In this small step and the next, children build on their skills using the numbers to 13 to become more familiar with the numbers to 20

This small step focuses on building numbers to 20

Provide many opportunities for children to build these numbers, again focusing on the ten and 4, 5, 6, 7, 8, 9

Continue to encourage them to build the numbers using the sequence identified in number stories. Use manipulatives to explore the structure of numbers beyond 10

Simple matching games can support children to link the number to the quantity, using resources such as number and representation cards. Encourage children to use loose parts and objects of interest to make these larger numbers. Use ten frames to support and emphasise the structure they are building. Allow children to explore larger staircase models and patterns that show that the next number is one more than the previous number.



Books

- *The Real Princess* by Brenda Williams
- *One Moose, Twenty Mice* by Claire Beaton

Key questions

- How will you build the number _____?
- Where can you find the number _____?
- What number have you built? What do you notice?

Possible sentence stems

- I can see _____
- I can build/I have made _____
- _____ has ten and _____

Links to the curriculum

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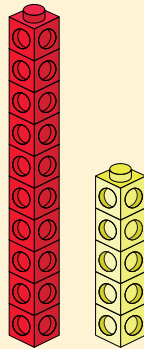
Adult-led learning



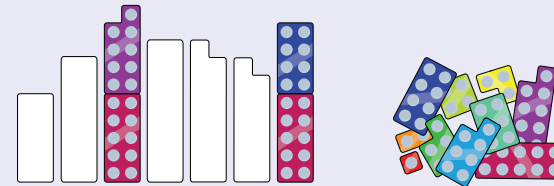
Read stories such as *One Moose, Twenty Mice* by Claire Beaton which show different representations of numbers up to 20

Prompt children to use manipulatives such as cubes to represent the number shown on each page.

How many cubes do you have? What do you notice?



Provide blank outlines of a cityscape for children to fill using number shapes. Prompt them to see which number has filled each tower. Is there more than one way to do this?

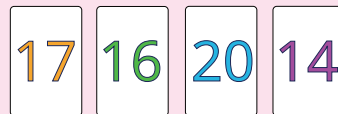
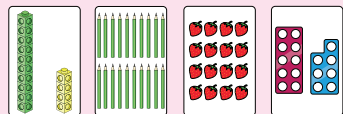


Challenge children to design their own cityscape for a partner to fill with number shapes.



Provide a set of picture cards and matching numeral cards for numbers up to 20

Give one card to each child and ask them to find a partner with the matching number. Prompt them to then find other children who have the same number shown in different ways.



What number card do you have? How do you know?



After reading stories such as *The Real Princess* by Brenda Williams, provide children with blank, pre-folded books.



Encourage children to make their own number stories. Prompt them to draw out numbers from familiar stories or numbers linked to their own interests.

Continue patterns beyond 10 (14–20)

Notes and guidance

In this small step, children develop their experiences of building the numbers from 14 to 20

They will now focus on seeing the pattern of ten and 4 more, ten and 5 more, ten and 6 more, and so on, which will then be built on further in later year groups.

Support children to recreate this pattern in provision using different resources and contexts, such as putting a given number of vehicles on a road or a given number of blocks in a tower.

Having an empty washing line and number cards available for children to sort will support children to recognise numerical patterns.

A good way to support children to see what comes next in a sequence is by having a puppet remove or reorder familiar resources, such as number shapes in an interactive display.

Key questions

- What number comes after _____?
- What do you notice about that number?
- What pattern can you see?

Possible sentence stems

- I can see 1 ten and _____
- _____ and _____ makes _____
- _____ comes after _____

Links to the curriculum

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Books

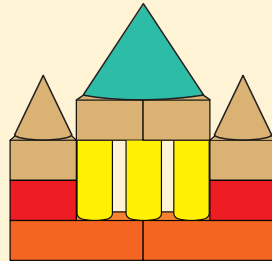
- *20 Big Trucks in the Middle of the Street* by Mark Lee
- *Jack the Builder* by Stuart J. Murphy

Continue patterns beyond 10 (14–20)

Adult-led learning



After reading stories such as *Jack the Builder* by Stuart J. Murphy, encourage children to build their own cityscapes using different numbers of blocks. Encourage children to count as they build.

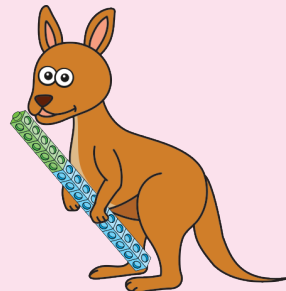
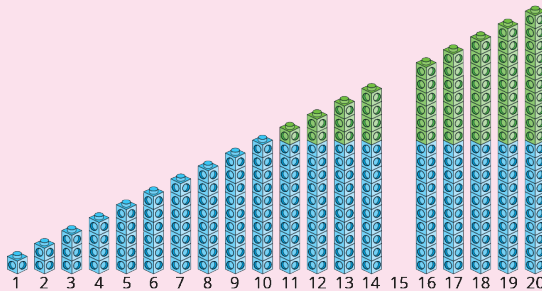


Prompt them to tell a partner what they have built and how many blocks they have used.

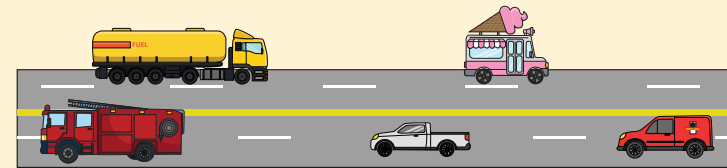


Provide a randomly arranged set of towers to 20 and use a class puppet to remove a tower without children seeing. Ask them to order the towers to identify which one is missing. How do they know?

Can they build it?



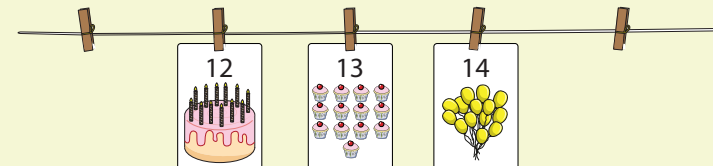
Read stories such as *20 Big Trucks in the Middle of the Street* by Mark Lee with children. Prompt them to enact the story by adding different vehicles to their street in the small world area.



Encourage children to count how many vehicles they have each time. What patterns do they notice?



Provide children with a set of birthday cards where the cardinal value is represented in pictures on the front.



Play 'Which one is missing?' with a birthday card number line. Shuffle the cards and prompt children to order them to find the missing card.

Verbal counting beyond 20

Notes and guidance

In this small step and the next, children will focus on counting verbally beyond 20

Children should already have heard the numbers beyond 20

This step provides time to focus on this skill in adult-led learning. However, this will also need to be embedded in daily routines to support children to become confident.

In this small step, children focus on the process of counting and the numerical patterns. Provide many opportunities for verbal counting beyond 20, pausing at each multiple to draw out the structure. Playing games and taking part in activities involving numbers beyond 20 can help to develop this skill, focusing on saying the numbers out loud. One example of this is playing hide and seek.



Rhymes

- *Catch, Catch, Catch a Fish*



Books

- *Monster Math* by Anne Miranda

Key questions

- What number comes after _____ ?
- What number comes before _____ ?
- What number shall we start counting from?

Possible sentence stems

- _____ comes after _____
- _____ comes before _____
- I will start counting from _____

Links to the curriculum

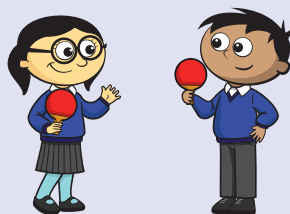
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Verbal counting beyond 20

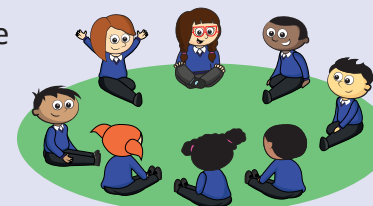
Adult-led learning

Play 'ping pong' with numbers to 20 and beyond. Say one number and then prompt children to say the next number, repeating back and forth.

Repeat with different starting numbers and practise counting on and back.



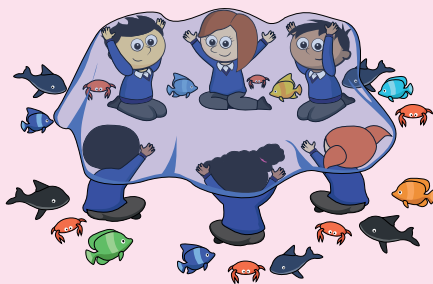
Encourage children to sit in a circle with both their legs stretched out in front of them. Pick a 'target number' below 30 and prompt children to count from zero to 30



Children say one number for each leg they have in the circle and tap each leg in turn as they say each number. If a child says the target number, then they must tuck that leg away. Continue until there is just one child left in the game.



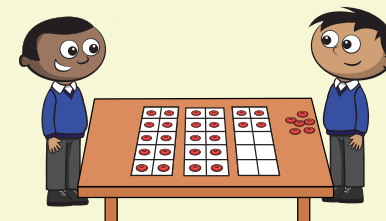
Sit the whole class in a circle with a range of different sea creatures behind their backs and sing the rhyme, "Catch, catch, catch a fish, hook it on your line. Reel it, reel it, reel it in, this one will be mine". Children with a fish behind their back place it into the middle of the circle. Count how many fish there are altogether.



Repeat the song and change the 'fish' to other sea creatures.



Fill three ten frames with 30 small-world objects and place them in the middle of two children to begin the game.



Children take it in turns to roll a dice and collect the corresponding number of objects from the frames. The child who takes away the last object wins the game. As children play, encourage them to say how many objects remain.

Verbal counting patterns

Notes and guidance

In this small step, children build on verbal counting beyond 20 by noticing the counting patterns involved.

Provide calendars, hundred squares or number tracks, both inside and out, either painted or marked out on the ground. This will support children to become familiar with 2-digit numbers beyond 20 and to start to spot the patterns within them. Children may naturally be curious about bigger numbers. Read stories such as *1 is One* by Tasha Tudor with children, paying particular attention to how each number is represented in the pictures to support counting larger numbers.

It is important that this skill should still remain fun and active, so that children are eager to count. A good way to encourage this is for one child to pick the starting number, such as the date of the month, and another to say if we will be counting on or back. Children can also pick what actions they count, such as taps, clicks or stamps, to embed this skill and make it memorable.



Books

- *1 is One* by Tasha Tudor

Key questions

- What number comes after _____ ?
- What number comes before _____ ?
- What number shall we start counting from?

Possible sentence stems

- _____ comes after _____
- _____ comes before _____
- I will start counting from _____

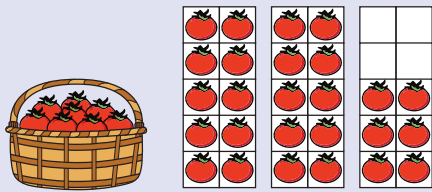
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Verbal counting patterns

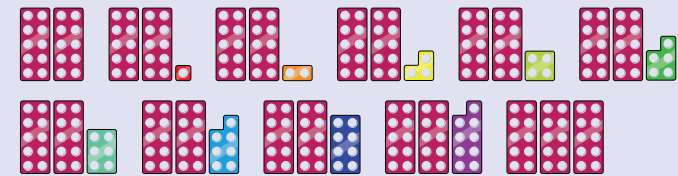
Adult-led learning

At the start of snack time, count out the fruit with children, making sure you have more than 20 pieces to count.



As you lift each piece of fruit out of the basket, say the number name and place it in a line or on a ten frame.

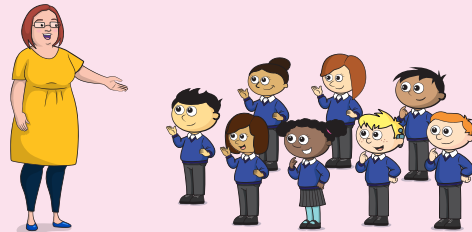
Provide children with a range of number shapes. Prompt children to make their own number line using the number shapes.



What do you notice about the pattern of these numbers?



Play 'I count, you count' with children to practise counting on from different starting points. Point to yourself and begin counting. Then point to the group and prompt them to continue the count.



This could be extended to having more than one group of children.



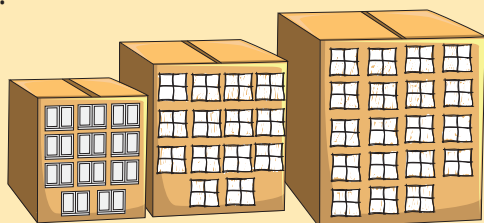
Provide children with a large hundred square chalked on the ground outside. Cover some of the numbers up and ask children to identify the missing numbers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

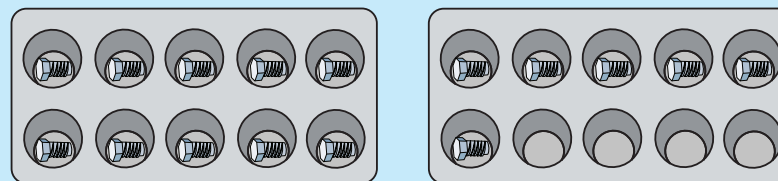
How do they know that number is the missing number? Can they count on from the missing number?

Continuous provision

Ensure that children have a variety of small and large recyclable box modelling resources. Encourage children to make their own 'number city' by constructing different sized buildings and representing amounts by the number of windows.

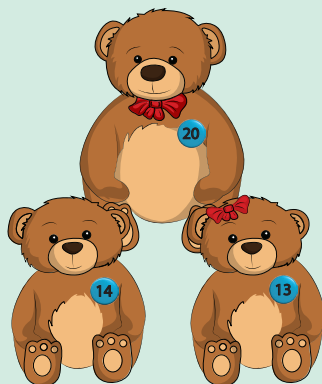


Give children up to 30 small loose parts, for example nuts and bolts. Encourage them to estimate how many there are. Then prompt them to arrange these items into bun tins with 10 spaces to help them to see how many full tens and how many of the next ten they have.



Enhance provision with teddy bears and give each a birthday badge with a number from 11 to 20

Provide children with blank folded cards and encourage them to make their own birthday cards for one of the bears. Prompt them to mark-make or draw images to represent the corresponding number.



Provide children with hundred squares and number tracks, both inside on a small scale and outside on a larger scale, painted or chalked onto the ground. Calendars displayed with key events are also a great way to encourage children to count forwards or backwards to important dates.

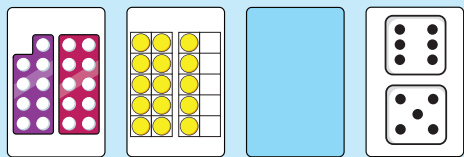
Encourage children to notice and become familiar with 2-digit numbers and start to spot the patterns within them.

February						
SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

End of block checkpoint

Checkpoint 1

Provide children with a selection of picture cards from 11 to 20 and ask them to select four each. Hold up numeral cards one by one. If children have the matching picture card, they can turn it over.



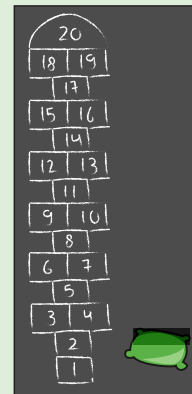
Can children recognise what number is represented on each picture card?



Checkpoint 2

Play hopscotch to 20
Children throw a beanbag towards the hopscotch.

Can they identify the number their beanbag landed on? Can they count on as they move up the hopscotch and then count back as they return?



Checkpoint 3

Select a number to begin counting from and ask children to choose whether to count on or back. Can children maintain the stable order when counting beyond 20?

