Summer Block 2

How many now?

White Rose MATHS

Teacher guidance

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Key books

- *Mouse Count* by Ellen Stoll Walsh
- *One Ted Falls out of Bed* by Julia Donaldson
- *My Granny Went to Market* by Stella Blackstone
- *Mr Gumpy's Outing* by John Burningham
- *Splash!* by Ann Jonas
- *Tad* by Benji Davies
- *The Shopping Basket* by John Burningham

Key resources

Top tips

- Using 'first, then, now' number stories helps children to find the answer to the question "How many now?" by providing meaningful contexts.

- Encourage children to represent number stories using props and manipulatives so that they can see the maths that is happening.

- Using double-sided counters on ten frames provides a visual aid so that children can see how many have been added or taken away.

Small steps

Step 1	Add more

Step 2	How many did I add?

Step 3	Take away

Step 4	How many did I take away?

Add more

Notes and guidance

In this small step, children build on their understanding as they explore the change structure of addition (augmentation) by adding more. The focus for this step is on increasing a quantity by a given amount, while continuing to work within 10

Children will use real objects to see that the quantity of a group can be changed by adding more. The 'first, then, now' structure is a very effective way to help build their understanding by creating mathematical stories in meaningful contexts. At first, children may need to re-count all the items (for example, 1, 2, 3, 4, 5, 6, 7) to see how many they have altogether. When they are ready, support them to count on instead (for example, 4, 5, 6, 7).

Encourage children to enact and represent number stories using ten frames, number tracks and their fingers.

Key questions

- How many are there?
- How many were there first?
- How many are there now?
- How many are there altogether?

Possible sentence stems

- First there were _____
- Then _____ more were added.
- Now there are _____
- There are _____ altogether.

Books

- *Mouse Count* by Ellen Stoll Walsh
- *One Ted Falls out of Bed* by Julia Donaldson
- *My Granny Went to Market* by Stella Blackstone

Links to the curriculum

- *Development Matters* – Reception – Automatically recall number bonds for numbers 0–5 and some to 10.
- *Birth to 5 Matters* – Range 6 – In practical activities, adds one and subtracts one with numbers to 10

Add more

Adult-led learning

Ask children to show you 5 fingers. Now show 2 more. How many fingers are showing now? How do you know there are 7?

Extend this by showing children a numeral card and asking them to represent the number on a ten frame with double-sided counters all on the same coloured side. Prompt them to add 3 more, representing this using the other side of the double-sided counters.
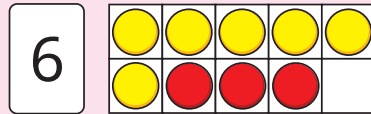
How many are there altogether? Repeat this with different numbers.

Use 'first, then, now' to tell simple number stories to practise adding more in real-life contexts. Set up a bus and bus stops and prompt children to say the story out loud to match the context. For example, "First there were 2 people on the bus. Then 2 more people got on the bus. Now there are 4 people on the bus."
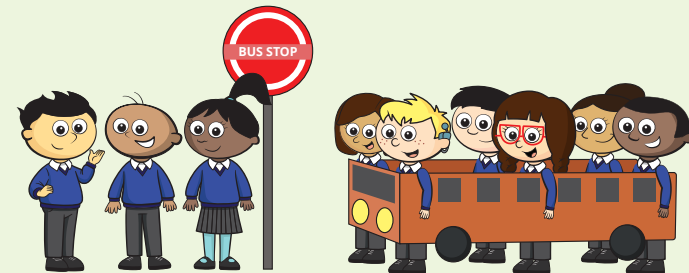
Read stories such as *Mouse Count* by Ellen Stoll Walsh with children, which demonstrate adding more than one. Enact 'first, then, now' stories using props linked to the story. For example, "First there were 3 mice in the jar. Then the snake added 2 more mice. How many mice are in the jar now?"

Count out 5 cubes. Ask children to check how many there are. Cover the cubes with a cloth. Then, add a hidden number of cubes under the cloth. Show children how many cubes there are now. Challenge them to work out how many cubes were added, using their fingers or mark-making.
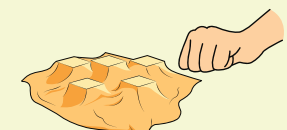
How many did I add?

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Notes and guidance

In this small step, children continue to develop their understanding of the addition change structure by adding more. Children have already explored finding the answer to "How many are there now?" To deepen learning, provide children with 'first, then, now' number stories where the 'then' part is missing. For example, "There were 5 children on the bus, then we don't know how many more got on, but now there are 8 children on the bus."

Support children to use real objects, such as a ten frame and counters, to find the missing number that was added. For example, they represent the starting number with red counters and then they add yellow counters until they reach the total amount. The number of yellow counters represents the number that has been added.

Rhymes

- *Ten Green Bottles*

Books

- *Mr Gumpy's Outing* by John Burningham

Key questions

- How many are there?
- How many are there now?
- How many were added?

Possible sentence stems

- First there were _____
- Now there are _____
- _____ were added.
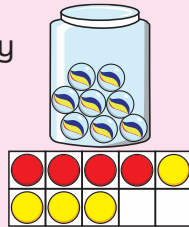- I added _____

Links to the curriculum

- *Development Matters* – Reception – Automatically recall number bonds for numbers 0–5 and some to 10.

- *Birth to 5 Matters* – Range 6 – Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"

# How many did I add?

Adand-led learning

Place a number of marbles in a jar and represent this number on a ten frame with red counters. Use a class puppet to add more marbles to the jar without children seeing. Count how many marbles are in the jar now. Support children to find how many were added by placing yellow counters on the ten frame until you reach the total number.

How many yellow counters did you add? How many marbles must the puppet have added?

In pairs, one child selects a numeral card and collects that number of cubes. The other child selects another numeral card and, without showing their partner, they add that number of cubes to the pile.
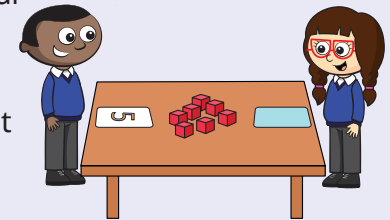
Their partner must work out what number is on the hidden card by finding how many cubes were added.

After reading stories such as *Mr Gumpy's Outing* by John Burningham, encourage children to play the characters from the story. Have some children in the boat and ask the other children to shut their eyes. Secretly tap some of these, who join the boat without the others seeing. Then ask everyone to open their eyes. How many children are in the boat now? How many were added?
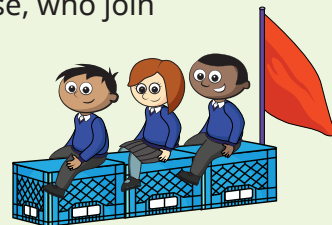
In the context of the song *Ten Green Bottles*, tell children a 'first, then, now' story where the first part is missing. For example, "We don't know how many bottles were on the wall, but then 3 more were added and now there are 10 altogether."
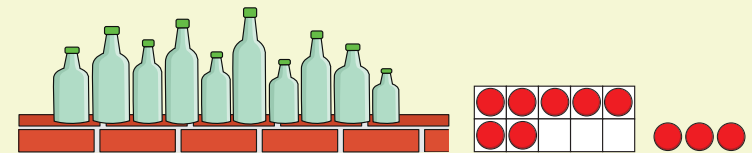
Encourage children to use a ten frame and counters to work out how many bottles there were at the start.

Take away

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Notes and guidance

In this small step, children build on their understanding as they explore the change structure of subtraction (reduction) by taking away. Children will have experience of taking away objects in everyday life and this is built on by focusing on taking away more than 1 object. The focus is on decreasing a quantity by a given amount, while continuing to work within 10

Encourage children to use real objects to see that the quantity of a group can be changed by taking some away. Prompt them to remove the items and then count or subitise to see how many are left. The 'first, then, now' structure is an effective way to help build their understanding by creating mathematical stories in meaningful contexts, using ten frames, number tracks and their fingers.

Rhymes

- *Ten Currant Buns*

Books

- *Splash!* by Ann Jonas
- *Tad* by Benji Davies

Key questions

- How many are there?
- How many were there first?
- How many are left?
- How many are there now?

Possible sentence stems

- First there were _____
- Then _____ were taken away.
- Now there are _____
- There are _____ left.
- I have _____, how can you show me _____?
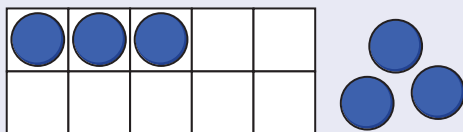
Links to the curriculum

- *Development Matters* – Reception – Automatically recall number bonds for numbers 0–5 and some to 10.
- *Birth to 5 Matters* – Range 6 – In practical activities, adds one and subtracts one with numbers to 10

Take away

Adult-led learning

Ask children to show you 5 fingers and then show you 4 fingers by putting one finger or thumb down. Prompt them to notice that 1 less is the same as taking away one. Repeat this and encourage children to notice how many are left each time.

Extend this by showing children a numeral and asking them to represent that number on a ten frame with counters. Then ask them to take away 3 counters. How many are left?

Repeat with different numbers.

After reading stories such as *Splash!* by Ann Jonas with children, set up a small-world scene with characters linked to the story. Encourage children to act out 'first, then, now' stories where characters are taken away. Following this, they could be prompted to create their own number stories. Encourage children to talk about how many characters are left each time.

Encourage children to act out rhymes such as *Ten Currant Buns* and adapt them so that more than one bun is taken away each time.

Prompt children to use props to find how many are left. They could also represent the 'first, then, now' story using cubes or counters on a ten frame.

In pairs, children play a game of 'pirate treasure'. Pick a numeral card and count out the corresponding number of gold coins or loose parts. One child covers their eyes while their partner 'steals' some of the coins and hides them.

The first child has to work out how many coins have been stolen. Children could count on or use double-sided counters to support them.

How many did I take away?

Notes and guidance

In this small step, children continue to develop their understanding of the subtraction change structure by taking away. Children have already explored finding the answer to "How many are there now?" To add challenge, provide children with 'first, then, now' number stories where the 'then' part is missing. For example, "There were 5 children on the bus, then we don't know how many got off, but now there are 2 children."

Support children to use real objects to find the missing number that was taken away. They can represent the starting number with counters on a ten frame, then remove counters until they represent the number of items there are now. Prompting children to talk about how many counters were taken away will help them understand the missing part.

Rhymes

- *Ten Little Ducks*

Books

- *The Shopping Basket* by John Burningham

Key questions

- How many are there?
- How many are there now?
- How many were taken away?

Possible sentence stems

- First there were _____
- Now there are _____
- _____ were taken away.
- I took away _____ and now there are _____

Links to the curriculum

- *Development Matters* – Reception – Automatically recall number bonds for numbers 0–5 and some to 10.

- *Birth to 5 Matters* – Range 6 – Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"

# How many did I take away?

Adult-led learning

After reading stories such as *The Shopping Basket* by John Burningham with children, enact scenes from the story but adapt them so that more than one item is secretly taken away. Model using towers of cubes to work out how many were taken away. Start by building a tower to represent the starting number. Take away cubes until you represent the number of items you have left. How many cubes were taken away?

As children are playing in the small-world area, encourage them to create their own 'first, then, now' stories. In pairs, they act out these number stories using props.
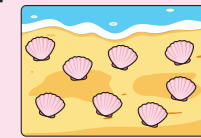
Have numeral cards available for children to select as starting numbers for their number stories. Then one child takes away some of the objects while their partner closes their eyes. Their partner then works out how many were taken.

Use simple 'first, then, now' number stories to practise taking away in real-life contexts.

Act out the 'first, then, now' story by setting up a train in the outdoor area.
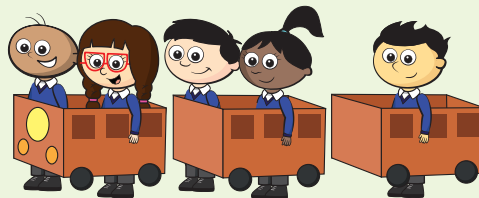
Ask some children to close their eyes and then prompt other children to get on the train. How many children are left at the station? How many have gone?

In the context of the song *Ten Little Ducks*, tell children a 'first, then, now' story where the first part is missing. For example, "We don't know how many ducks there were to start with, then 3 swam away and now there are 7 ducks left."
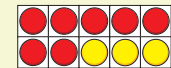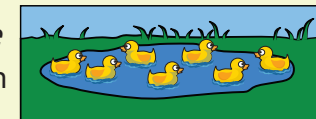
Encourage children to use a ten frame and different-coloured counters to represent how many there are now and how many were taken away.

Continuous provision

Encourage children to play a game of 'race to zero'. Provide them with two ten frames each, a dice and loose parts. Each child collects 20 items to fill their two ten frames. Then they take it in turns to roll a dice and take away the corresponding number of items. Each time, children say how many they have left.

The first child to reach exactly zero wins the game.

Enhance provision outside by providing a square-holed trellis, or tape a grid onto the playground, and a range of small objects such as beanbags or pebbles. Each child has a row on the trellis. They take it in turns to roll a dice and then they fill their row with the corresponding number of objects.
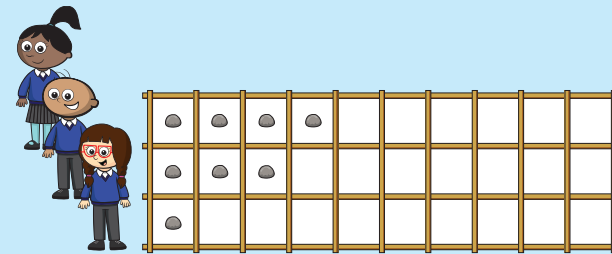
The first child to fill their row wins the game.

Prompt children to create their own 'first, then, now' stories using small-world resources linked to their interests.

For example, "First there were 3 dinosaurs. Then 2 more dinosaurs came along. Now there are 5 dinosaurs altogether." Encourage children to enact their number stories with a partner.
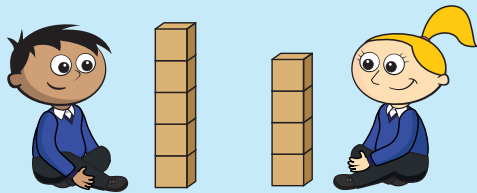
In pairs, prompt children to collect 10 objects. They take it in turns to choose whether to take away 1, 2 or 3 objects. The winner is the player who avoids taking the last object.

End of block checkpoint

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Checkpoint 1

Provide children with a 1 to 3 dice and cubes. Children take it in turns to collect 1, 2 or 3 cubes to add to their tower.

Can children say how many were added? How many cubes do they have now? How tall can they build their towers before they topple over?

Checkpoint 2

Play a game of 'pass it on' in small groups. Each child starts with 6 loose parts. They roll a 1 to 3 dice and pass the corresponding number of objects to the child on their left. The winner is the first child to give away all their objects.
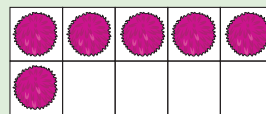
Can children say how many they have taken away? How many do they have left?

Checkpoint 3

Provide children with a 5 to 10 dice, beanbags and a bucket. Encourage one child to roll the dice and place the corresponding number of beanbags into the bucket. Prompt another child to take some of the beanbags out of the bucket without the group seeing how many. Tip the remaining beanbags out of the bucket. How many are left now? Can children work out how many beanbags must have been taken?