

Year 1 Unit 3 (Spring) Support Session 1

Understanding subtraction

Objectives

Understand the operation of subtraction (as 'take away', 'difference' and 'how many more to make?') and use the related vocabulary. Begin to use the $-$ and $=$ signs to record mental calculations in a number sentence.

Vocabulary

how many?
take away
count back
subtract
less

Resources

Number cards 10 to 30
Bag
Large 0-10 number line
Large counters or large circles of card
Small 0-10 number lines
Counters
Subtraction questions on pieces of card.

Oral and Mental Starter

Sit the children in a circle. Put number cards 10-30 in a bag.

Invite a child to pull a number from the bag and identify the number.
Use this number as a starting number for counting back to 10 around in a circle.

Q If we are counting back what happens to the numbers. Do they get bigger or smaller?

Repeat for other numbers in the bag, using different types of voices when counting (e.g. like a mouse, like giants, whispering, singing).

Main Activity

Display a large 0-10 number line. Count from 0 to 10 and back from 10 to 0 on the line.

Say that you are going to be practising take-away questions using the number line.

Write $5 - 2$ on the board.

Q Who can read this question?

Q Is there another way of saying it?

Draw out that we can say 'subtract' instead of 'take away'.

Q How can we find out the answer?

Ensure children understand that when we subtract 2 the answer will be smaller so that one way of solving subtraction questions is to count back.

Stick 5 large counters (or circles of card) above the numbers 1-5 (one above each number).

Q We have 5 counters. How many do we have to subtract?

Subtract the two counters one at a time starting at the right, saying, '5 take away 1 is 4, and take away another one leaves 3. We have 3 counters left' (these should be above numbers 1, 2 and 3).

Now ask the children to show you 5 fingers and to take away 2 by saying, '5 take away 1 is 4' (as you bend down 1 finger) and 'take away 2 is 3' (as you bend down the second finger).

Repeat for $8 - 3$, using the number line and counters and then fingers, this time using the word 'subtract' instead of 'take away'.

Give each child a 0-10 number line and 10 counters. Write $10 - 3$ on the board and ask the children to solve the question using their number line and counters.

Encourage them to subtract one counter at a time.

Give each child a card with a different subtraction question on it. Ask them to solve it using their number line and then to swap questions with a friend. As they do this work with each member of the group in turn to check their method is secure.

Plenary

Ask the children to imagine a 0-10 number line in their heads and then to imagine putting 6 counters on the number line. Ask them to subtract 2 counters.

Q How many are left?

Encourage the children to visualise the counters sitting on the number line. Repeat for $5 - 3$.

Year 1 Unit 3 (Spring) Support Session 2

Understanding subtraction

Objectives

Understand the operation of subtraction (as 'take away', 'difference' and 'how many more to make?') and use the related vocabulary. Begin to use the - and = signs to record mental calculations in a number sentence.

Vocabulary

how many?
take away
count back
subtract
less

Resources

Puppet
0-20 number line
0-20 wipe clean number lines
Dry-wipe pens
Subtraction questions on pieces of card
Whiteboards

Oral and Mental Starter

Make the puppet say, '8, 7, 6'. Ask children to say the next three numbers in the sequence.

Repeat using numbers up to 20 and counting backwards.

Puppet says, '19, 18, 17'

Children say, '16, 15, 14'

Refer to a 0-20 number line if necessary.

Main Activity

Ask the children for some words that mean 'take-away', such as 'subtract' and 'difference'.

Remind the children that last time they were solving take away problems by counting back on a number line.

Give each child a wipe-clean 0-20 number line.

Write 12 subtract 3 on the board.

Q What does this say?

Q How can we solve this problem?

Say that you could put 12 counters on our number line and subtract 3 but that you could also do this without counters by jumping back on the number line.

Ask each child to put their finger on 12 and to jump back 3 saying, '12 count back 1 is 11, count back 2 is 10, count back 3 is 9'.

Repeat for 20 - 4.

Give children a dry-wipe pen and show them how to record their jumps on the number line.

Q For the problem 15 subtract 3, where do we start on our number line? How many are we counting back? How many jumps do we need to do?

Give each child a card with a different subtraction question on it. Ask them to solve it using their number line and then to swap questions with a friend. As they do this work with each member of the group in turn to check their method.

Plenary

Give each child a whiteboard.

Ask them to respond to questions such as:

Q What is 13 take away 2?

Q What is 10 count back 3?

Q What is 20 subtract 2?

Encourage the children to visualise the jumps on the number line without drawing them.