

Addition and subtraction within 20

add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies

Learning intention

- add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies

Teach and model

- using drawings, physical and virtual materials and number combinations within 10 to add and subtract collections to 20
- adding and subtracting numbers within 20, using a variety of representations and strategies such as counting on, counting back, partitioning and part-part-whole...
- developing and using strategies for one-digit addition and subtraction based on part-part-whole relationships for each of the numbers to 10 and subitising with physical...

Check understanding

- Explain the main idea in addition and subtraction within 20 using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.