

Operations and Algebraic Thinking

The lessons in this module continue to build the relationship between addition and subtraction. The examples involve number facts that the children have previously studied from the make-ten addition group of facts. For these examples one addend is close to 10. The children review the strategy for these addition facts and then find and write the related subtraction facts. Children write fact families to reinforce the link between the operations. They also complete addition and subtraction number sentences with unknowns in a variety of places (e.g. $5 + \underline{\quad} = 12$, $\underline{\quad} + 5 = 12$; $12 - \underline{\quad} = 5$ and so on).

The make-ten strategy is the last of the number fact strategies for addition so this completes the work to link addition and subtraction number facts. The emphasis now moves to work with greater numbers.



For professional learning on this content, select the following videos from the resources tab at top right of screen.

CSFS *Teaching the Think-Addition Subtraction Fact Strategy*

Number and Operations in Base Ten

In this module, the children extend the make-ten addition strategy to add a two-digit and a one-digit number. They use the doubles strategy to add two-digit numbers. Because a doubles strategy is used, the two numbers are “close” to each other. The children will find that for these examples they will be able to compose a ten, but the addends are or near a multiple of 5 (e.g. $35 + 36$) so this is relatively easy to achieve.

This module extends addition further to add any pair of two-digit numbers. Examples that do not bridge a ten are presented first (e.g. $\$35 + \24). The children use a hundred chart and/or a number line to show their thinking. They are encouraged to begin with either the tens or the ones. The number line is used to help the children add two-digit numbers where they bridge a ten (e.g. $\$38 + \25). The children add the tens and use an approach similar to the make-ten strategy when they add the ones.



For professional learning on this content, select the following videos from the resources tab at top right of screen.

CAS3 *Teaching the Bridge-to-10 Strategy for Addition Number Facts*

BAMS *Using Mental Strategies to Add*

BMSA *Comparing Mental Strategies: Addition*

BMSQ *Questions for Developing Mental Computation Strategies*

Measurement and Data

This module introduces the standard metric units, the centimeter and meter. The first length lesson helps the children build a personal reference for the length one centimeter. They learn that it is a very short length. They then use a centimeter ruler to measure objects in the classroom. In a similar way, the children are then introduced to the metric unit “one meter”. They measure lengths in the classroom and use a tally chart to show the results. Discussions are held to informally compare units in the Customary and the metric systems. Children are not expected to make any conversions between the units. The final lesson introduces the line plot (or dot plot). This data representation is quick to construct and easy to interpret. It is used here to summarize data for lengths.