

MA.1.NSO.2.2

Overarching Standard: *MA.1.NSO.2. Develop an understanding of addition and subtraction operations with one- and two-digit numbers.*

Benchmark of Focus

MA.1.NSO.2.2: Add two whole numbers with sums from 0 to 20 and subtract using related facts with procedural reliability.

Benchmark Clarifications:

Clarification 1: Instruction focuses on helping a student choose a method they can use reliably.

Clarification 2: Instruction includes situations involving adding to, putting together, comparing, and taking from.

Related Benchmark/Horizontal Alignment

- MA.1.NSO.1.1/1.2/1.3
- MA.1.AR.1.1/1.2
- MA.1.AR.2.1/2.2
- MA.1.M.1.1
- MA.1.M.2.3
- MA.1.DP.1.2

Vertical Alignment

Previous Benchmarks	Next Benchmarks
MA.K.NSO.3.2	MA.2.NSO.2.1
	MA.2.NSO.2.3

Terms from the K-12 Glossary

- Expressions
- Equations

Purpose and Instructional Strategies

The purpose of this benchmark is for students to recognize the relationship between addition and subtraction and to use that relationship as a possible strategy (i.e., if $12 + 3$ is 15, then $15 - 3$ is 12). In Kindergarten, students explored adding two numbers between 0 and 10 and related subtraction facts and added two one-digit numbers with sums from 0 to 10 and used related subtraction facts with procedural reliability.

- Instruction focuses on students choosing reliable methods to find the sum.
- Instruction encourages students to use strategies that move them towards building efficiency but need not include the use of an algorithm.
- Instruction includes the explicit use of strategies.
 - Strategies include skip counting, decomposing into tens and ones, and making a

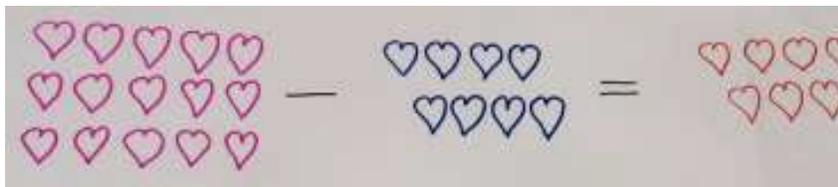
ten (there is an expectation of automaticity within 10 in grade 1).

Common Misconceptions or Errors

- Students may reverse the minuend and subtrahend in the ones, from the assumption the minuend must be larger than the subtrahend (i.e., for $12 - 5$, finding $15 - 2$). In these cases, is it important for students to use concrete manipulates such as base ten blocks as they must exchange a tens rod for ten ones so that they may physically take away from the ones place.
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Strategies to Support Tiered Instruction

- Teacher provides a real-world problem using subtraction asking students to create a subtraction equation that is represented in the problem. Students are provided the opportunity to use a manipulative to solve the subtraction problem.
 - For example, Cora has 15 stickers on her sheet. She gives her friend 8 of the stickers. How many stickers are still on her sheet?



- Teacher provides a subtraction expression verbally asking students to write the expression. Teacher provides manipulatives to solve the subtraction problem. Acting out the “take from” action can provide the support for understanding. Students may need to regroup tens to ones to solve or to regroup when it is not needed.
 - For example, in the equation $13 - 5$, students may use base-ten blocks to represent the problem. Students will need to regroup the ten rod for ten units. Then, remove 5 units to solve the subtraction problem. Students may need prompting as to what needs to be exchanged.
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Questions to ask students:

- **Ask: How can you figure out $4 + 5$? What strategy did you use?**
 - Sample answer that indicates understanding: *I can break apart the 5 into 4 + 1. I know that $4 + 4 = 8$ and 1 more is 9. ($4 + 5 = 4 + 4 + 1$)*
 - **Ask: How can you make a model of the fact that you solved?**
 - Sample answer that indicates understanding: *Student correctly models the situation of a problem using a concrete model or a pictorial representation.*
 - **Ask: How can addition help you with $15 - 2$?**
 - Sample answer that indicates understanding: *I know that $13 + 2 = 15$, so that means I could use counting up to subtract, 13 and 2 more is 15, so $15 - 2 = 13$.*
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Instructional Tasks

Instructional Task 1 (MTR.4.1, MTR.5.1)

Joey was trying to find the difference $15 - 7$. He counted backward by ones from 15 saying "14, 13, 12, 11, 10, 9, 8." What might be a more efficient strategy that Joey could use to take 7 away from 15? Will your strategy work for all subtraction expressions? Explain.

Instructional Task 2

Two students are working together on a project. Each student has nine crayons. If the students put their crayons together, how many will they have together? Write an addition or subtraction equation that you could use to help you solve the problem.

Instructional Items

Instructional Item 1

Josephine used the subtraction equation $17 - 9 = 8$ to help her solve an addition problem. What could have been Josephine's addition problem?

Instructional Item 2

What is the sum of 8 and 11?

Additional Resources:

[CPALMS Resources](#)

Blog Post: [Assessing Mathematical Fluency](#)

Blog Post: [Think Add to Subtract](#)

[How to Build Fact Fluency with Addition Bingo | Understood - For learning and thinking differences](#)

Resources/Tasks to Support Your Child at Home:

Play "Make a Ten" with a deck of cards. First remove all face cards from the deck. Leave the Aces; they will count as 1. Deal out nine cards arranged in three rows and three columns. Students make a ten but picking up two cards, when put together, equal 10. (Ace & 9, 2 & 8, 3 & 7 etc.) Once no more ten matches can be made, fill in the empty spaces with more cards. This game can be played individually or as a race between children. For additional support, children can count the number of symbols in the center of each card to make a ten.

Using two dice (regular or ten-sided dice, which are often available at stores such as Dollar Tree), roll the dice and solve. You must explain your strategy to the other players.

Double Down: Adding doubles – Each player gets two pair of dice and a piece of paper. How to play: When you say, “Roll ‘em!” everyone rolls their two dice simultaneously. Anytime someone rolls doubles, they say, “Double Down!” That player stops rolling, then adds the value of the dice, and record doubles equation and the sum on their paper. As play continues, players keep track of scores. Whoever correctly solves the most doubles facts at the end of five minutes wins.

Practice different combinations to add to a target number with this [online game](#).