



Grade 1

In grade 1, instructional time will emphasize four areas:

- (1) understanding the place value of tens and ones within two-digit whole numbers;
- (2) extending understanding of addition and subtraction and the relationship between them;
- (3) developing an understanding of measurement of physical objects, money and time and
- (4) categorizing, composing and decomposing geometric figures.

Number Sense and Operations

MA.1.NSO.1 Extend counting sequences and understand the place value of two-digit numbers.

MA.1.NSO.1.1 Starting at a given number, count forward and backwards within 120 by ones. Skip count by 2s to 20 and by 5s to 100.

Benchmark Clarifications:

Clarification 1: Instruction focuses on the connection to addition as “counting on” and subtraction as “counting back”.

Clarification 2: Instruction also focuses on the recognition of patterns within skip counting which helps build a foundation for multiplication in later grades.

Clarification 3: Instruction includes recognizing counting sequences using visual charts, such as a 120 chart, to emphasize base 10 place value.

MA.1.NSO.1.2 Read numbers from 0 to 100 written in standard form, expanded form and word form. Write numbers from 0 to 100 using standard form and expanded form.

Example: The number seventy-five written in standard form is 75 and in expanded form is $70 + 5$.

MA.1.NSO.1.3 Compose and decompose two-digit numbers in multiple ways using tens and ones. Demonstrate each composition or decomposition with objects, drawings and expressions or equations.

Example: The number 37 can be expressed as $3 \text{ tens} + 7 \text{ ones}$, $2 \text{ tens} + 17 \text{ ones}$ or as 37 ones .



MA.1.NSO.1.4 Plot, order and compare whole numbers up to 100.

Example: The numbers 72, 35 and 58 can be arranged in ascending order as 35, 58 and 72.

Benchmark Clarifications:

Clarification 1: When comparing numbers, instruction includes using a number line and using place values of the tens and ones digits.

Clarification 2: Within this benchmark, the expectation is to use terms (e.g., less than, greater than, between or equal to) and symbols ($<$, $>$ or $=$).

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

MA.1.NSO.2.1 Recall addition facts with sums to 10 and related subtraction facts with automaticity.

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.

MA.1.NSO.2.3 Identify the number that is one more, one less, ten more and ten less than a given two-digit number.

Example: One less than 40 is 39.

Example: Ten more than 23 is 33.

MA.1.NSO.2.4 Explore the addition of a two-digit number and a one-digit number with sums to 100.

Benchmark Clarifications:

Clarification 1: Instruction focuses on combining ones and tens and composing new tens from ones, when needed.

Clarification 2: Instruction includes the use of manipulatives, number lines, drawings or models.



MA.1.NSO.2.5 Explore subtraction of a one-digit number from a two-digit number.

Example: Finding $37 - 6$ is the same as asking “What number added to 6 makes 37?”

Benchmark Clarifications:

Clarification 1: Instruction focuses on utilizing the number line as a tool for subtraction through “counting on” or “counting back”. The process of counting on highlights subtraction as a missing addend problem.

Clarification 2: Instruction includes the use of manipulatives, drawings or equations to decompose tens and regroup ones, when needed.

Fractions

MA.1.FR.1 Develop an understanding of fractions by partitioning shapes into halves and fourths.

MA.1.FR.1.1 Partition circles and rectangles into two and four equal-sized parts. Name the parts of the whole using appropriate language including halves or fourths.

Benchmark Clarifications:

Clarification 1: This benchmark does not require writing the equal sized parts as a fraction with a numerator and denominator.

Algebraic Reasoning

MA.1.AR.1 Solve addition problems with sums between 0 and 20 and subtraction problems using related facts.

MA.1.AR.1.1 Apply properties of addition to find a sum of three or more whole numbers.

Example: $8 + 7 + 2$ is equivalent to $7 + 8 + 2$ which is equivalent to $7 + 10$ which equals 17.

Benchmark Clarifications:

Clarification 1: Within this benchmark, the expectation is to apply the associative and commutative properties of addition. It is not the expectation to name the properties or use parentheses. Refer to [Properties of Operations, Equality and Inequality \(Appendix D\)](#).

Clarification 2: Instruction includes emphasis on using the properties to make a ten when adding three or more numbers.

Clarification 3: Addition is limited to sums within 20.



- MA.1.AR.1.2 Solve addition and subtraction real-world problems using objects, drawings or equations to represent the problem.

Benchmark Clarifications:

Clarification 1: Instruction includes understanding the context of the problem, as well as the quantities within the problem.

Clarification 2: Students are not expected to independently read word problems.

Clarification 3: Addition and subtraction are limited to sums within 20 and related subtraction facts. Refer to [Situations Involving Operations with Numbers \(Appendix A\)](#).

MA.1.AR.2 Develop an understanding of the relationship between addition and subtraction.

- MA.1.AR.2.1 Restate a subtraction problem as a missing addend problem using the relationship between addition and subtraction.

Example: The equation $12 - 7 = ?$ can be restated as $7 + ? = 12$ to determine the difference is 5.

Benchmark Clarifications:

Clarification 1: Addition and subtraction are limited to sums within 20 and related subtraction facts.

- MA.1.AR.2.2 Determine and explain if equations involving addition or subtraction are true or false.

Example: Given the following equations,
 $8 = 8$, $9 - 1 = 7$, $5 + 2 = 2 + 5$ and $1 = 9 - 8$,
 $9 - 1 = 7$ can be determined to be false.

Benchmark Clarifications:

Clarification 1: Instruction focuses on understanding of the equal sign.

Clarification 2: Problem types are limited to an equation with no more than four terms. The sum or difference can be on either side of the equal sign.

Clarification 3: Addition and subtraction are limited to sums within 20 and related subtraction facts.

- MA.1.AR.2.3 Determine the unknown whole number in an addition or subtraction equation, relating three whole numbers, with the unknown in any position.

Example: $9 + ? = 12$
Example: $17 = \square + 5$
Example: $? - 4 = 8$

Benchmark Clarifications:

Clarification 1: Instruction begins the development of algebraic thinking skills where the symbolic representation of the unknown uses any symbol other than a letter.

Clarification 2: Problems include the unknown on either side of the equal sign.

Clarification 3: Addition and subtraction are limited to sums within 20 and related subtraction facts. Refer to [Situations Involving Operations with Numbers \(Appendix A\)](#).



Measurement

MA.1.M.1 Compare and measure the length of objects.

MA.1.M.1.1 Estimate the length of an object to the nearest inch. Measure the length of an object to the nearest inch or centimeter.

Benchmark Clarifications:

Clarification 1: Instruction emphasizes measuring from the zero point of the ruler. The markings on the ruler indicate the unit of length by marking equal distances with no gaps or overlaps.

Clarification 2: When estimating length, the expectation is to give a reasonable number of inches for the length of a given object.

MA.1.M.1.2 Compare and order the length of up to three objects using direct and indirect comparison.

Benchmark Clarifications:

Clarification 1: When directly comparing objects, the objects can be placed side by side or they can be separately measured in the same units and the measurements can be compared.

Clarification 2: Two objects can be compared indirectly by directly comparing them to a third object.

MA.1.M.2 Tell time and identify the value of coins and combinations of coins and dollar bills.

MA.1.M.2.1 Using analog and digital clocks, tell and write time in hours and half-hours.

Benchmark Clarifications:

Clarification 1: Within this benchmark, the expectation is not to understand military time or to use a.m. or p.m.

Clarification 2: Instruction includes the connection to partitioning circles into halves and to semi-circles.

MA.1.M.2.2 Identify pennies, nickels, dimes and quarters, and express their values using the ¢ symbol. State how many of each coin equal a dollar.

Benchmark Clarifications:

Clarification 1: Instruction includes the recognition of both sides of a coin.

Clarification 2: Within this benchmark, the expectation is not to use decimal values.



- MA.1.M.2.3 Find the value of combinations of pennies, nickels and dimes up to one dollar, and the value of combinations of one, five and ten dollar bills up to \$100. Use the ¢ and \$ symbols appropriately.

Benchmark Clarifications:

Clarification 1: Instruction includes the identification of a one, five and ten-dollar bill and the computation of the value of combinations of pennies, nickels and dimes or one, five and ten dollar bills.

Clarification 2: Instruction focuses on the connection to place value and skip counting.

Clarification 3: Within this benchmark, the expectation is not to use decimal values or to find the value of a combination of coins and dollars.

Geometric Reasoning

MA.1.GR.1 Identify and analyze two- and three-dimensional figures based on their defining attributes.

- MA.1.GR.1.1 Identify, compare and sort two- and three-dimensional figures based on their defining attributes. Figures are limited to circles, semi-circles, triangles, rectangles, squares, trapezoids, hexagons, spheres, cubes, rectangular prisms, cones and cylinders.

Benchmark Clarifications:

Clarification 1: Instruction focuses on the defining attributes of a figure: whether it is closed or not; number of vertices, sides, edges or faces; and if it contains straight, curved or equal length sides or edges.

Clarification 2: Instruction includes figures given in a variety of sizes, orientations and non-examples that lack one or more defining attributes.

Clarification 3: Within this benchmark, the expectation is not to sort a combination of two- and three-dimensional figures at the same time or to define the attributes of trapezoids.

Clarification 4: Instruction includes using formal and informal language to describe the defining attributes of figures when comparing and sorting.

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- MA.1.GR.1.2 Sketch two-dimensional figures when given defining attributes. Figures are limited to triangles, rectangles, squares and hexagons.
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- MA.1.GR.1.3 Compose and decompose two- and three-dimensional figures. Figures are limited to semi-circles, triangles, rectangles, squares, trapezoids, hexagons, cubes, rectangular prisms, cones and cylinders.

Example: A hexagon can be decomposed into 6 triangles.

Example: A semi-circle and a triangle can be composed to create a two-dimensional representation of an ice cream cone.

Benchmark Clarifications:

Clarification 1: Instruction focuses on the understanding of spatial relationships relating to part-whole, and on the connection to breaking apart numbers and putting them back together.

Clarification 2: Composite figures are composed without gaps or overlaps.

Clarification 3: Within this benchmark, it is not the expectation to compose two- and three-dimensional figures at the same time.

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- MA.1.GR.1.4 Given a real-world object, identify parts that are modeled by two- and three-dimensional figures. Figures are limited to semi-circles, triangles, rectangles, squares and hexagons, spheres, cubes, rectangular prisms, cones and cylinders.
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Data Analysis and Probability

MA.1.DP.1 Collect, represent and interpret data using pictographs and tally marks.

- MA.1.DP.1.1 Collect data into categories and represent the results using tally marks or pictographs.

Example: A class collects data on the number of students whose birthday is in each month of the year and represents it using tally marks.

Benchmark Clarifications:

Clarification 1: Instruction includes connecting tally marks to counting by 5s.

Clarification 2: Data sets include geometric figures that are categorized using their defining attributes and data from the classroom or school.

Clarification 3: Pictographs are limited to single-unit scales.

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- MA.1.DP.1.2 Interpret data represented with tally marks or pictographs by calculating the total number of data points and comparing the totals of different categories.

Benchmark Clarifications:

Clarification 1: Instruction focuses on the connection to addition and subtraction when calculating the total and comparing, respectively.
