

Grade 2 - Mathematics

Standard 1: Number Sense

Students understand the relationships among numbers, quantities, and place value in whole numbers up to 100. They understand that fractions may refer to parts of a set and parts of a whole.

2.1.1

Count by ones, twos, fives, and tens to 100.

2.1.2

Identify the pattern of numbers in each group of ten, from tens through nineties.

2.1.3

Identify numbers up to 100 in various combinations of tens and ones.

2.1.4

Name the number that is ten more or ten less than any number 10 through 90.

2.1.5

Compare whole numbers up to 100 and arrange them in numerical order.

2.1.6

Match the number names (*first, second, third, etc.*) with an ordered set of up to 100 items.

2.1.7

Identify odd and even numbers up to 100.

2.1.8

Recognize fractions as parts of a whole or parts of a group (up to 12 parts).

2.1.9

Recognize, name, and compare the unit fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{8}$, $\frac{1}{10}$, and $\frac{1}{12}$.

2.1.10

Know that, when all fractional parts are included, the result is equal to the whole and to one.

2.1.11

Collect and record numerical data in systematic ways.

2.1.12

Represent, compare, and interpret data using tables, tally charts, and bar graphs.

Standard 2: Computation

Students solve simple problems involving addition and subtraction of numbers up to 100.

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2.2.1

Model addition of numbers less than 100 with objects and pictures.

2.2.2

Add two whole numbers less than 100 with and without regrouping.

2.2.3

Subtract two whole numbers less than 100 without regrouping.

2.2.4

Understand and use the inverse relationship between addition and subtraction.

2.2.5

Use estimation to decide whether answers are reasonable in addition problems.

2.2.6

Use mental arithmetic to add or subtract 0, 1, 2, 3, 4, 5, or 10 with numbers less than 100.

Standard 3: Algebra and Functions

Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction.

2.3.1

Relate problem situations to number sentences involving addition and subtraction.

2.3.2

Use the commutative and associative properties for addition to simplify mental calculations and to check results.

2.3.3

Recognize and extend a linear pattern by its rules.

2.3.4

Create, describe, and extend number patterns using addition and subtraction.

Standard 4: Geometry

Students identify and describe the attributes of common shapes in the plane and of common objects in space.

2.4.1

Construct squares, rectangles, triangles, cubes, and rectangular prisms with appropriate materials.

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2.4.2

Describe, classify, and sort plane and solid geometric shapes (triangle, square, rectangle, cube, rectangular prism) according to the number and shape of faces and the number of sides, edges, and/or vertices.

2.4.3

Investigate and predict the result of putting together and taking apart two-dimensional and three-dimensional shapes.

2.4.4

Identify congruent two-dimensional shapes in any position.

2.4.5

Recognize geometric shapes and structures in the environment and specify their locations.

Standard 5: Measurement

Students understand how to measure length, temperature, capacity, weight, and time in standard units.

2.5.1

Measure and estimate length to the nearest inch, foot, yard, centimeter, and meter.

2.5.2

Describe the relationships among inch, foot, and yard. Describe the relationship between centimeter and meter.

2.5.3

Decide which unit of length is most appropriate in a given situation.

2.5.4

Estimate area and use a given object to measure the area of other objects.

2.5.5

Estimate and measure capacity using cups and pints.

2.5.6

Estimate weight and use a given object to measure the weight of other objects.

2.5.7

Recognize the need for a fixed unit of weight.

2.5.8

Estimate temperature. Read a thermometer in Celsius and Fahrenheit.

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2.5.9

Tell time to the nearest quarter hour, be able to tell five-minute intervals, and know the difference between a.m. and p.m.

2.5.10

Know relationships of time: seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year.

2.5.11

Find the duration of intervals of time in hours.

2.5.12

Find the value of a collection of pennies, nickels, dimes, quarters, half-dollars, and dollars.

Standard 6: Problem Solving

Students make decisions about how to set up a problem.

2.6.1

Choose the approach, materials, and strategies to use in solving problems.

2.6.2

Use tools such as objects or drawings to model problems.

2.6.3

Explain the reasoning used and justify the procedures selected in solving a problem.

2.6.4

Make precise calculations and check the validity of the results in the context of the problem.

2.6.5

Understand and use connections between two problems.