# Hands-On Standards Deluxe
**Grades:** Pre K, K, 1, 2
**States:** California Content Standards

Hands-On Standards, Deluxe Edition Kit, Grades 1-2: Algebra
Summary: This resource guide meets Grades 1-2 math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Algebra section covers the following skills and concepts: even and odd number patterns; commutative property; associative property; skip-counting patterns; skip counting by 5s; identifying and extending patterns; identifying and extending a number pattern; identifying change; and finding missing addends and subtrahends. Click on the blue link above to view and read about the program components and manipulatives. (43043-3)

**California Content Standards**
**Mathematics**
Grade: **1**

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| **CONTENT STANDARD** | **CA.NS.** | **Number Sense** |
| **PERFORMANCE STANDARD** | **2.0.** | Students demonstrate the meaning of addition and subtraction and use these operations to solve problems. |
| **GRADE LEVEL EXPECTATION** | **2.4.** | Count by 2s, 5s, and 10s to 100. |
| **GRADE LEVEL EXPECTATION** | **2.5.** | Show the meaning of addition (putting together, increasing) and subtraction (taking away, comparing, finding the difference). |
| **CONTENT STANDARD** | **CA.AF.** | **Algebra and Functions** |
| **PERFORMANCE STANDARD** | **1.0.** | Students use number sentences with operational symbols and expressions to solve problems. |
| **GRADE LEVEL EXPECTATION** | **1.1.** | Write and solve number sentences from problem situations that express relationships involving addition and subtraction. |
| **CONTENT STANDARD** | **CA.SDAP.** | **Statistics, Data Analysis, and Probability** |
| **PERFORMANCE STANDARD** | **2.0.** | Students sort objects and create and describe patterns by numbers, shapes, sizes, rhythms, or colors. |
| **GRADE LEVEL EXPECTATION** | **2.1.** | Describe, extend, and explain ways to get to a next element in simple repeating patterns (e.g., rhythmic, numeric, color, and shape). |
| **CONTENT STANDARD** | **CA.MR.** | **Mathematical Reasoning** |
| **PERFORMANCE STANDARD** | **1.0.** | Students make decisions about how to set up a problem. |
| **GRADE LEVEL EXPECTATION** | **1.2.** | Use tools, such as manipulatives or sketches, to model problems. |
| **CONTENT STANDARD** | **CA.MR.** | **Mathematical Reasoning** |
| **PERFORMANCE STANDARD** | **2.0.** | Students solve problems and justify their reasoning. |
| **GRADE LEVEL EXPECTATION** | **2.1.** | Explain the reasoning used and justify the procedures selected. |

Grade: **2**

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|---|---|---|
| **CONTENT STANDARD** | **CA.AF.** | **Algebra and Functions** |
| **PERFORMANCE STANDARD** | **1.0.** | Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. |
| **GRADE LEVEL EXPECTATION** | **1.1.** | Use the commutative and associative rules to simplify mental calculations and to check results. |
| **GRADE LEVEL EXPECTATION** | **1.3.** | Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences. |
| **CONTENT STANDARD** | **CA.SDAP.** | **Statistics, Data Analysis, and Probability** |

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| PERFORMANCE STANDARD | 2.0. | Students demonstrate an understanding of patterns and how patterns grow and describe them in general ways. |
| GRADE LEVEL EXPECTATION | 2.1. | Recognize, describe, and extend patterns and determine a next term in linear patterns (e.g., 4, 8, 12...; the number of ears on one horse, two horses, three horses, four horses). |
| GRADE LEVEL EXPECTATION | 2.2. | Solve problems involving simple number patterns. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Defend the reasoning used and justify the procedures selected. |

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Hands-On Standards, Deluxe Edition Kit, Grades 1-2: Data Analysis and Probability
Summary: This resource guide meets Grades 1-2 math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Data Analysis and Probability section covers the following skills and concepts: bar graphs; pictographs; probability; likely outcomes; making predictions; and drawing conclusions. Click on the blue link above to view and read about the program components and manipulatives. (43043-5)

**California Content Standards**
**Mathematics**

Grade: **1**

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|---|---|---|
| CONTENT STANDARD | CA.SDAP. | Statistics, Data Analysis, and Probability |
| PERFORMANCE STANDARD | 1.0. | Students organize, represent, and compare data by category on simple graphs and charts. |
| GRADE LEVEL EXPECTATION | 1.2. | Represent and compare data (e.g., largest, smallest, most often, least often) by using pictures, bar graphs, tally charts, and picture graphs. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Explain the reasoning used and justify the procedures selected. |

Grade: **2**

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| CONTENT STANDARD | CA.SDAP. | Statistics, Data Analysis, and Probability |
| PERFORMANCE STANDARD | 1.0. | Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations. |
| GRADE LEVEL EXPECTATION | 1.1. | Record numerical data in systematic ways, keeping track of what has been counted. |
| GRADE LEVEL EXPECTATION | 1.4. | Ask and answer simple questions related to data representations. |

| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
|---|---|---|
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Defend the reasoning used and justify the procedures selected. |

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Hands-On Standards, Deluxe Edition Kit, Grades 1-2: Geometry
Summary: This resource guide meets Grades 1-2 math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Geometry section covers the following skills and concepts: identifying plane and congruent shapes; building cubes and prisms; symmetry; slides, flips, and turns; combining shapes; building shapes; and tangram puzzles. Click on the blue link above to view and read about the program components and manipulatives. (43043-2)

**California Content Standards**
**Mathematics**

Grade: **1**

| CONTENT STANDARD | CA.MG. | Measurement and Geometry |
|---|---|---|
| PERFORMANCE STANDARD | 2.0. | Students identify common geometric figures, classify them by common attributes, and describe their relative position or their location in space. |
| GRADE LEVEL EXPECTATION | 2.1. | Identify, describe, and compare triangles, rectangles, squares, and circles, including the faces of three-dimensional objects. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Explain the reasoning used and justify the procedures selected. |

Grade: **2**

| CONTENT STANDARD | CA.MG. | Measurement and Geometry |
|---|---|---|
| PERFORMANCE STANDARD | 2.0. | Students identify and describe the attributes of common figures in the plane and of common objects in space. |
| GRADE LEVEL EXPECTATION | 2.1. | Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) according to the number and shape of faces, edges, and vertices. |
| GRADE LEVEL EXPECTATION | 2.2. | Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle). |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |

| | | |
|---|---|---|
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Defend the reasoning used and justify the procedures selected. |

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Hands-On Standards, Deluxe Edition Kit, Grades 1-2: Measurement
Summary: This resource guide meets Grades 1-2 math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Measurement section covers the following skills and concepts: nonstandard units; standard units; inches and feet; choosing a unit; exploring perimeter; measuring perimeter; solving perimeter problems; area of squares and rectangles; exploring volume; comparing volume; time to the half-hour; time to 5 minutes; and elapsed time. Click on the blue link above to view and read about the program components and manipulatives. (43043-4)

**California Content Standards**
**Mathematics**

Grade: **1**

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|---|---|---|
| CONTENT STANDARD | CA.MG. | Measurement and Geometry |
| PERFORMANCE STANDARD | 1.0. | Students use direct comparison and nonstandard units to describe the measurements of objects. |
| GRADE LEVEL EXPECTATION | 1.2. | Tell time to the nearest half hour and relate time to events (e.g., before/after, shorter/longer). |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Explain the reasoning used and justify the procedures selected. |

Grade: **2**

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|---|---|---|
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 3.0. | Students model and solve simple problems involving multiplication and division. |
| GRADE LEVEL EXPECTATION | 3.1. | Use repeated addition, arrays, and counting by multiples to do multiplication. |
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 6.0. | Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places. |
| GRADE LEVEL EXPECTATION | 6.1. | Recognize when an estimate is reasonable in measurements (e.g., closest inch). |
| CONTENT STANDARD | CA.MG. | Measurement and Geometry |
| PERFORMANCE STANDARD | 1.0. | Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured. |
| GRADE LEVEL EXPECTATION | 1.2. | Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used. |
| GRADE LEVEL EXPECTATION | 1.3. | Measure the length of an object to the nearest inch and/or centimeter. |
| GRADE LEVEL | 1.5. | Determine the duration of intervals of time in hours (e.g., 11: 00 a.m. to 4: 00 p.m.). |

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| EXPECTATION | | |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Defend the reasoning used and justify the procedures selected. |

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Hands-On Standards, Deluxe Edition Kit, Grades 1-2: Number and Operations
Summary: This resource guide meets Grades 1-2 math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction, to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Number and Operations section covers the following skills and concepts: showing sets of 1 to 5; representing numbers; greater than and less than; exploring counting on; comparing values; addition sentences; adding doubles; exploring counting back; comparison subtraction; subtraction sentences; connecting addition and subtraction; fact families to 10; exploring place value; comparing two-digit numbers; adding without regrouping; adding with regrouping; subtracting without regrouping; subtracting with regrouping; decomposing numbers; repeated addition; repeated subtraction; equal sharing; recognizing fractions; identifying simple fractions; ordering numbers; estimating with basic facts; adding three numbers; and writing number sentences. Click on the blue link above to view and read about the program components and manipulatives. (43043-1)

**California Content Standards**
**Mathematics**
Grade: **1**

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|---|---|---|
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 1.0. | Students understand and use numbers up to 100. |
| GRADE LEVEL EXPECTATION | 1.2. | Compare and order whole numbers to 100 by using the symbols for less than, equal to, or greater than. |
| GRADE LEVEL EXPECTATION | 1.3. | Represent equivalent forms of the same number through the use of physical models, diagrams, and number expressions (to 20) (e.g., 8 may be represented as 4 +4, 5 +3, 2 +2 +2 +2, 10 - 2, 11 - 3). |
| GRADE LEVEL EXPECTATION | 1.4. | Count and group object in ones and tens (e.g., three groups of 10 and 4 equals 34, or 30 +4). |
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 2.0. | Students demonstrate the meaning of addition and subtraction and use these operations to solve problems. |
| GRADE LEVEL EXPECTATION | 2.1. | Know the addition facts (sums to 20) and the corresponding subtraction facts and commit them to memory. |
| GRADE LEVEL EXPECTATION | 2.2. | Use the inverse relationship between addition and subtraction to solve problems. |
| GRADE LEVEL EXPECTATION | 2.5. | Show the meaning of addition (putting together, increasing) and subtraction (taking away, comparing, finding the difference). |
| CONTENT STANDARD | CA.AF. | Algebra and Functions |
| PERFORMANCE STANDARD | 1.0. | Students use number sentences with operational symbols and expressions to solve problems. |
| GRADE LEVEL | 1.1. | Write and solve number sentences from problem situations that express relationships |

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|---|---|---|
| EXPECTATION | | involving addition and subtraction. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.1. | Determine the approach, materials, and strategies to be used. |

Grade: **2**

| | | |
|---|---|---|
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 1.0. | Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000. |
| GRADE LEVEL EXPECTATION | 1.2. | Use words, models, and expanded forms (e.g., 45 = 4 tens +5) to represent numbers (to 1,000). |
| GRADE LEVEL EXPECTATION | 1.3. | Order and compare whole numbers to 1,000 by using the symbols is less than, =, is greater than. |
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 2.0. | Students estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit numbers. |
| GRADE LEVEL EXPECTATION | 2.1. | Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for 8 +6 = 14 is14 - 6 = 8) to solve problems and check solutions. |
| GRADE LEVEL EXPECTATION | 2.2. | Find the sum or difference of two whole numbers up to three digits long. |
| GRADE LEVEL EXPECTATION | 2.3. | Use mental arithmetic to find the sum or difference of two two-digit numbers. |
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 3.0. | Students model and solve simple problems involving multiplication and division. |
| GRADE LEVEL EXPECTATION | 3.1. | Use repeated addition, arrays, and counting by multiples to do multiplication. |
| GRADE LEVEL EXPECTATION | 3.2. | Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division. |
| CONTENT STANDARD | CA.NS. | Number Sense |
| PERFORMANCE STANDARD | 4.0. | Students understand that fractions and decimals may refer to parts of a set and parts of a whole. |
| GRADE LEVEL EXPECTATION | 4.1. | Recognize, name, and compare unit fractions from 1/12to 1/2. |
| GRADE LEVEL EXPECTATION | 4.2. | Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls). |
| GRADE LEVEL EXPECTATION | 4.3. | Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one. |
| CONTENT STANDARD | CA.AF. | Algebra and Functions |
| PERFORMANCE STANDARD | 1.0. | Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. |
| GRADE LEVEL EXPECTATION | 1.2. | Relate problem situations to number sentences involving addition and subtraction. |
| GRADE LEVEL EXPECTATION | 1.3. | Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.1. | Determine the approach, materials, and strategies to be used. |

Summary: This resource guide meets PreK-K math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Algebra section covers the following skills and concepts: sorting by one attribute; sorting by two attributes; determining the sorting rule; extending color, shape, and growing patterns; translating patterns; three-object patterns; and arranging sets of objects. Click on the blue link above to view and read about the program components and manipulatives. (43042-3)

**California Content Standards**
**Mathematics**
Grade: **K**

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|---|---|---|
| **CONTENT STANDARD** | **CA.NS.** | **Number Sense** |
| **PERFORMANCE STANDARD** | **1.0.** | Students understand the relationship between numbers and quantities (i.e., that a set of objects has the same number of objects in different situations regardless of its position or arrangement). |
| **GRADE LEVEL EXPECTATION** | **1.2.** | Count, recognize, represent, name, and order a number of objects (up to 30). |
| **CONTENT STANDARD** | **CA.NS.** | **Number Sense** |
| **PERFORMANCE STANDARD** | **2.0.** | Students understand and describe simple additions and subtractions. |
| **GRADE LEVEL EXPECTATION** | **2.1.** | Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10). |
| **CONTENT STANDARD** | **CA.AF.** | **Algebra and Functions** |
| **PERFORMANCE STANDARD** | **1.0.** | Students sort and classify objects. |
| **GRADE LEVEL EXPECTATION** | **1.1.** | Identify, sort, and classify objects by attribute and identify objects that do not belong to a particular group (e.g., all these balls are green, those are red). |
| **CONTENT STANDARD** | **CA.SDAP.** | **Statistics, Data Analysis, and Probability** |
| **PERFORMANCE STANDARD** | **1.0.** | Students collect information about objects and events in their environment. |
| **GRADE LEVEL EXPECTATION** | **1.2.** | Identify, describe, and extend simple patterns (such as circles or triangles) by referring to their shapes, sizes, or colors. |
| **CONTENT STANDARD** | **CA.MR.** | **Mathematical Reasoning** |
| **PERFORMANCE STANDARD** | **1.0.** | Students make decisions about how to set up a problem. |
| **GRADE LEVEL EXPECTATION** | **1.2.** | Use tools and strategies, such as manipulatives or sketches, to model problems. |
| **CONTENT STANDARD** | **CA.MR.** | **Mathematical Reasoning** |
| **PERFORMANCE STANDARD** | **2.0.** | Students solve problems in reasonable ways and justify their reasoning. |
| **GRADE LEVEL EXPECTATION** | **2.1.** | Explain the reasoning used with concrete objects and/or pictorial representations. |

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Hands-On Standards, Deluxe Edition Kit, PreK-K: Data Analysis and Probability
Summary: This resource guide meets PreK-K math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Data Analysis and Probability section covers the following skills and concepts: exploring pictographs and bar graphs; graphing data; using a bar graph; cube tallies; and spinner probabilities. Click on the blue link above to view and read about the program components and manipulatives. (43042-5)

**California Content Standards**
**Mathematics**
Grade: **K**

| | | |
|---|---|---|
| CONTENT STANDARD | CA.SDAP. | Statistics, Data Analysis, and Probability |
| PERFORMANCE STANDARD | 1.0. | Students collect information about objects and events in their environment. |
| GRADE LEVEL EXPECTATION | 1.1. | Pose information questions; collect data; and record the results using objects, pictures, and picture graphs. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools and strategies, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 2.0. | Students solve problems in reasonable ways and justify their reasoning. |
| GRADE LEVEL EXPECTATION | 2.1. | Explain the reasoning used with concrete objects and/or pictorial representations. |

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Hands-On Standards, Deluxe Edition Kit, PreK-K: Geometry
Summary: This resource guide meets PreK-K math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Geometry section covers the following skills and concepts: left and right; attributes of plane shapes; plane shapes and real-life objects; exploring shape attributes; shape attribute riddles; cubes and spheres; geometric pictures and designs; geometric problems; top, middle, and bottom; positions in a line; relative locations; inside and outside; and before and after. Click on the blue link above to view and read about the program components and manipulatives. (43042-2)

**California Content Standards**
**Mathematics**
Grade: **K**

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|---|---|---|
| CONTENT STANDARD | CA.AF. | Algebra and Functions |
| PERFORMANCE STANDARD | 1.0. | Students sort and classify objects. |
| GRADE LEVEL EXPECTATION | 1.1. | Identify, sort, and classify objects by attribute and identify objects that do not belong to a particular group (e.g., all these balls are green, those are red). |
| CONTENT STANDARD | CA.MG. | Measurement and Geometry |
| PERFORMANCE STANDARD | 2.0. | Students identify common objects in their environment and describe the geometric features. |
| GRADE LEVEL EXPECTATION | 2.1. | Identify and describe common geometric objects (e.g., circle, triangle, square, rectangle, cube, sphere, cone). |
| GRADE LEVEL EXPECTATION | 2.2. | Compare familiar plane and solid objects by common attributes (e.g., position, shape, size, roundness, number of corners). |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE STANDARD | 1.0. | Students make decisions about how to set up a problem. |
| GRADE LEVEL EXPECTATION | 1.2. | Use tools and strategies, such as manipulatives or sketches, to model problems. |
| CONTENT STANDARD | CA.MR. | Mathematical Reasoning |
| PERFORMANCE | 2.0. | Students solve problems in reasonable ways and justify their reasoning. |

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| STANDARD | | |
| GRADE LEVEL EXPECTATION | 2.1. | Explain the reasoning used with concrete objects and/or pictorial representations. |

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Hands-On Standards, Deluxe Edition Kit, PreK-K: Measurement
Summary: This resource guide meets PreK-K math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Measurement section covers the following skills and concepts: nonstandard measurement of height; sorting by height and length; estimating and measuring length; and exploring perimeter and area. Click on the blue link above to view and read about the program components and manipulatives. (43042-4)

**California Content Standards**
**Mathematics**
Grade: **K**

| CONTENT STANDARD | CA.MG. | Measurement and Geometry |
|---|---|---|
| PERFORMANCE STANDARD | 1.0. | Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and capacity, and that comparisons may be made by referring to those properties. |
| GRADE LEVEL EXPECTATION | 1.1. | Compare the length, weight, and capacity of objects by making direct comparisons with reference objects (e.g., note which object is shorter, longer, taller, lighter, heavier, or holds more). |

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Hands-On Standards, Deluxe Edition Kit, PreK-K: Number and Operations
Summary: This resource guide meets PreK-K math curriculum standards by matching activities to instructional objectives with ready-to-use, full-color lesson plans organized by strand. Lessons use hands-on activities, incorporating manipulatives into instruction to build concrete understanding and connect concepts to students' growing background of real-world experiences. The Number and Operations section covers the following skills and concepts: counting to 5 and back; groups of 0 to 5; groups of 6 to 10; number shapes; estimating and counting; comparing groups; equal groups; more and fewer; order of numbers; ordinal numbers; counting on; part-part-whole; joining problems; using the plus sign; decomposing numbers; separating problems; using the minus sign; identifying halves; position of objects; representing numbers with objects; more than, less than, same as; addition-sums to 10; and subtraction-differences from 10. Click on the blue link above to view and read about the program components and manipulatives. (43042-1)

**California Content Standards**
**Mathematics**
Grade: **K**

| CONTENT STANDARD | CA.NS. | Number Sense |
|---|---|---|
| PERFORMANCE STANDARD | 1.0. | Students understand the relationship between numbers and quantities (i.e., that a set of objects has the same number of objects in different situations regardless of its position or arrangement). |
| GRADE LEVEL EXPECTATION | 1.1. | Compare two or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than, or less than the other. |
| GRADE LEVEL EXPECTATION | 1.2. | Count, recognize, represent, name, and order a number of objects (up to 30). |
| GRADE LEVEL EXPECTATION | 1.3. | Know that the larger numbers describe sets with more objects in them than the smaller numbers have. |

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| **CONTENT STANDARD** | **CA.NS.** | **Number Sense** |
| **PERFORMANCE STANDARD** | **2.0.** | Students understand and describe simple additions and subtractions. |
| **GRADE LEVEL EXPECTATION** | **2.1.** | Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10). |
| **CONTENT STANDARD** | **CA.MR.** | **Mathematical Reasoning** |
| **PERFORMANCE STANDARD** | **1.0.** | Students make decisions about how to set up a problem. |
| **GRADE LEVEL EXPECTATION** | **1.1.** | Determine the approach, materials, and strategies to be used. |
| **GRADE LEVEL EXPECTATION** | **1.2.** | Use tools and strategies, such as manipulatives or sketches, to model problems. |