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# New York State Next Generation Mathematics Learning Standards Correlated to Moving with Math Extensions Grade 2

| | | Student Book | Skill Builders |
|---|---|---|---|
| | **Operations and Algebraic Thinking** | | |
| **2.OA** | Represent and solve problems involving addition and subtraction. | | |
| **1a** | Use addition and subtraction within 100 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. | 9, 10, 12, 13, 20-22, 28-32, 34, 35, 37, 39 | 26-1, 28-1, 28-3, 28-4, 30-1, 32-1, 34-2, 36-1, 39-2, 39-3, 40-1, 41-1, 42-1, 42-2, 48-1, 49-1, 49-2 |
| **1b** | Use addition and subtraction within 100 to develop an understanding of solving two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. | 23 | 39-1 |
| **2.OA** | **Add and subtract within 20.** | | |
| **2a** | Fluently add and subtract within 20 using mental strategies. Strategies could include:<br>• counting on;<br>• making ten; e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14<br>• decomposing a number leading to a ten; e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9<br>• using the relationship between addition and subtraction; and e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4<br>• creating equivalent but easier or known sums | 14, 16, 17 | 26-2, 26-3, 27-1, 27-2, 29-1 to 29-3 |
| **2b** | Know from memory all sums within 20 of two one-digit numbers. | | |
| **2.OA** | Work with equal groups of objects to gain foundations for multiplication. | | |
| **3a** | Determine whether a group of objects (up to 20) has an odd or even number of members. | 7, 8 | 9-2 to 9-5, 26-4 |
| **3b** | Write an equation to express an even number as a sum of two equal addends. | 8 | 26-4 |
| **4** | Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as a sum of equal addends. | 66 | 50-2 |
| | **Number and Operations in Base Ten** | | |
| **2.NBT** | **Understand place value.** | | |
| **1** | Understand that the digits of a three-digit number represent amounts of hundreds, tens, and ones. | | |

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| **a)** | Understand 100 can be thought of as a bundle of ten tens, called a “hundred.” | 25, 41 | 45-4, 45-7 |
| **b)** | Understand the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones). | 41 | 45-4, 45-7 |
| **2** | Count within 1000; skip-count by 5s, 10s, and 100s. | 24, 25, 41 | 10-1, 45-4 |
| **3** | Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. | 5, 25, 27, 41, 42 | 45-1, 45-5, 45-6 |
| **4** | Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. | 43 | 45-3, 45-8 |
| **2.NBT** | **Use place value understanding and properties of operations to add and subtract.** | | |
| **5** | Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. | 28-39 | 30-1, 30-2, 31-1, 32-1, 32-3, 34-1, 34-2, 35-1, 36-1, 47-1, 47-2, 48-1 to 48-5, 49-1, 49-2 |
| **6** | Add up to four two-digit numbers using strategies based on place value and properties of operations. | 33 | 49-1, 49-2 |
| **7a** | Add and subtract within 1000, using<br>• concrete models or drawings, and<br>• strategies based on place value, properties of operations, and/or the relationship between<br>addition and subtraction.<br><br>Relate the strategy to a written representation.<br><br>Note: A written representation is any way of showing a strategy using words, pictures, or numbers. | 44, 45 | 32-2, 32-4, 36-2 to 36-6 |
| **7b** | Understand that in adding or subtracting up to three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and sometimes it is necessary to compose or decompose tens or hundreds. | 44, 45 | 32-2, 32-4, 36-2 to 36-6 |
| **8** | Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. | | 36-4 |
| **9** | Explain why addition and subtraction strategies work, using place value and the properties of operations.<br><br>Note: Explanations may be supported by drawings or objects. | 30-39, 44, 45 | 30-1, 30-2, 31-1, 31-2, 32-1, 32-2, 32-4, 34-1, 34-2, 35-1, 36-1 to 36-6, 47-1, 47-2, 48-4, 48-5, 49-1, 49-2 |
| | **Measurement and Data** | | |
| **2.MD** | **Measure and estimate lengths in standard units.** | | |
| **1** | Measure the length of an object to the nearest whole by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes | 54-57, 59 | 19-1, 19-2, 19-8 |

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| **2** | Measure the length of an object twice, using different “length units” for the two measurements; describe how the two measurements relate to the size of the unit chosen. | 56 | 19-8 |
| **3** | Estimate lengths using units of inches, feet, centimeters, and meters. | 55, 56 | 19-1, 19-2, 19-4, 19-7 |
| **4** | Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard “length unit.” | 54, 57 | 19-3 |
| **2.MD** | **Relate addition and subtraction to length.** | | |
| **5** | Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. | 58 | 19-3, 19-10 |
| **6** | Represent whole numbers as lengths from 0 on a number line with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line. | 17, 28, 34 | 29-2, 34-2 |
| **2.MD** | **Work with time and money.** | | |
| **7** | Tell and write time from analog and digital clocks in five minute increments, using a.m. and p.m. Develop an understanding of common terms, such as, but not limited to, *quarter past, half past* , and *quarter to* . | 51 | 18-1, 18-2, 18-4, 18-5 |
| **8a** | Count a mixed collection of coins whose sum is less than or equal to one dollar. | 52 | 22-1, 23-1 |
| **8b** | Solve real world and mathematical problems within one dollar involving quarters, dimes, nickels, and pennies, using the ¢ (cent) symbol appropriately. | 53 | |
| **2.MD** | **Represent and interpret data.** | | |
| **9** | Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Present the measurement data in a line plot, where the horizontal scale is marked off in whole-number units. | 59 | 38-2 |
| **10** | Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a picture graph or a bar graph. | 64 | 38-1, 38-3 |
| | **Geometry** | | |
| **2.G.** | **Reason with shapes and their attributes.** | | |
| **1** | Classify two-dimensional figures as polygons or non-polygons. | | |
| **2** | Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. | 49 | 20-2 |
| **3** | Partition circles and rectangles into two, three, or four equal shares. Describe the shares using the words *halves, thirds, half of, a third of* , etc. Describe the whole as *two halves, three thirds* , *four fourths* . Recognize that equal shares of identical wholes need not have the same shape. | 61, 62 | 25-1 |