## Idaho Extended Standards Draft Extended Content Indicators <br> Grade 2 <br> Mathematics

Standard 1: Number and Operation-Students in Grade 2 demonstrate knowledge of our numeration system by counting forward by twos, fives, and tens to 100 and by counting forward and backward by ones from any given number less than 100 . Students read, write, compare, and order whole numbers to 1,000 and students identify place value through 999 . Students count the value of a collection of pennies, nickels, dimes, and quarters up to a dollar. Students use strategies for addition and subtraction combinations through 18 and students add whole numbers with and without regrouping through 99 .

Extended Standard 1: Students in Grade 2 demonstrate knowledge of our numeration system by counting forward by ones from any given number less than 10 . Students read, write, compare, and order whole numbers and identify place value of ones and tens. Students identify and demonstrate the value of a collection of simple coins. Students use manipulatives and strategies for addition and subtraction combinations.

| Topic | GR | Goals | Objectives | Essence | Extended Content Indicators |
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|  | 2.M.1.1 | Goal 1.1: Understand and use numbers. | 2.M.1.1.1 Demonstrate knowledge of our numeration system by counting forward by twos, fives, and tens to 100 and by counting forward and backward by ones from any given number less than 100. (277.01.a) |  | 2.M.1.1.1A <br> Demonstrate knowledge of the numeration system by counting forward by 1 's |
|  |  |  | 2.M.1.1.2 Read, write, compare, and order whole numbers to 1,000 . (277.01.b) |  | 2.M.1.1.2A <br> Communicate and demonstrate whole numbers in order up to 10 |
|  |  |  | 2.M.1.1.3 Identify place value through 999. (277.01.c) |  | 2.M.1.1.3A <br> Show the symbolic representation of the tens place value. |
|  |  |  | 2.M.1.1.4 Count the value of a collection of pennies, nickels, dimes, and quarters up to $\$ 1.00$. (277.01.d) |  | 2.M.1.1.4 A <br> Identify and demonstrate the value of pennies and nickels |
|  |  |  | 2.M.1.1.5 Recognize mathematical information and select strategies appropriate for solving a problem. (278.01.a) |  | 2.M.1.1.5 A <br> Demonstrate the ability to solve simple problems. |
|  |  |  | 2.M.1.1.6 Use appropriate vocabulary. (277.01.f) |  | 1.M.1.1.6A <br> Attend to appropriate math vocabulary terms. |

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|  | 2.M.1.2 | Goal 1.2: Perform <br> computations accurately. | 2.M.1.2.1 Use strategies for <br> addition and subtraction <br> combinations through 18. <br> $(277.02 . a)$ | 2.M.1.2.1A <br> Use objects, pictures, or symbolic systems to explore addition or subtraction problems to 10 |  |
|  |  |  | 2.M.1.2.2 Add whole <br> numbers with and without <br> regrouping through 99. <br> (277.02.b) | 2.M.1.2.2 A <br> Count two groups of objects, pictures or symbolic system to identify total quantity up to ten. |  |
|  |  |  | 2.M.1.2.3 Add three one-digit <br> addends. (277.02.c) | 2.M.1.2.3A <br> Count three groups of objects, pictures or symbolic system to identify total quantity up to five. |  |
|  |  |  | 2.M.1.2.4 Choose addition or <br> subtraction to solve word <br> problems and explain the <br> choice. (278.01.b) | 2.M.1.2.4 A <br> Use manipulatives for adding/subtracting. |  |
|  |  |  | 2.M.1.2.5 Use appropriate <br> vocabulary. (277.02.e) | 2.M.1.2.5 A <br> Attend to appropriate math vocabulary terms |  |

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|  | 2.M.1.3 | Goal 1.3: Estimate and judge reasonableness of results. | 2.M.1.3.1 Estimate to predict the sum of numbers through 99. (277.03.a) |  | 2.M.1.3.A <br> Estimate a quantity of objects when shown a set of 10 . |
|  |  |  | 2.M.1.3.2 Use estimation to evaluate the reasonableness of the sum of numbers through 99. (277.03.b) |  | 2.M.1.3.2 A <br> Use estimation skills and determine reasonableness across daily activities. |
|  |  |  | 2.M.1.3.3 Use appropriate vocabulary. (277.03.c) |  | 2.M.1.3.3A <br> Attend to appropriate vocabulary. |

Standard 2: Concepts and Principles of Measurement - Students in Grade 2 measure time, length, weight and temperature using standard and non-standard units and tools. Students tell time using both digital and analog clocks to the half hour.

Extended Standard 2: Students in Grade 2 identify, measure, or compare time, length, and weight using standard or non-standard units and tools. Students identify time of the day by association to routines.

| Topic | Gr | Goal | Objectives | Essence |  |
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|  | 2.M.2.1 | Goal 2.1: Understand and use <br> U.S. customary and metric <br> measurements. | 2.M.2.1.1 Select a tool that <br> can measure a given attribute <br> (ruler - length, cup - volume, <br> balance - weight, clock - <br> time, thermometer - <br> temperature). (279.01.a) | Extended Content Indicators <br> 2.M.2.1.1 A <br> Compare objects given and attribute, eg. lengths sizes, weight, time |  |
|  |  |  | 2.M.2.1.2 Estimate length <br> and time using standard units. <br> (279.01.b) | 2.M.2.1.2 Estimate length <br> and time using standard units. <br> (279.01.b) | 2.M.2.1.2A <br> Estimate time using non-standard or standard units. |
|  |  |  | 2.M.2.1.4 Select the most <br> appropriate unit to measure <br> the time of a given situation <br> (minutes, hours). (279.01.d) | 2.M.2.1.3 A <br> Identify time of day by activity - e.g. morning before school, schooltime, after school, after <br> dinner |  |
|  |  |  | 2.M.2.1.5 Recite the months <br> of the year, in order. | 2.M.2.1.4 A <br> Select the most appropriate activity given the time of the day. |  |
|  |  | 2.M.2.1.6 Use appropriate <br> vocabulary. (279.01.e) |  | 2.M.2.1.5 <br> Identify a calendar and how the days of the week are represented. |  |

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|  | $2 . M .2 .2$ | Goal 2.2: Apply the concepts <br> of rates, ratios, and <br> proportions. | No objectives at this grade <br> level. |  | No objectives at this grade level. |
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|  | $2 . M .2 .3$ | Goal 2.3: Apply dimensional <br> analysis. | No objectives at this grade <br> level. |  | No objectives at this grade level. |
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Standard 3: Concepts and Language of Algebra and Functions - Students in Grade 2 show the relationship between addition and subtraction and demonstrate reversal of operations. Students write a number sentence from an addition or subtraction problem-solving situation. Students use the commutative property of addition. Students translate a repeating pattern from one representation to another.

Extended Standard 3: Students in Grade 2 show the relationship between addition and subtraction with fact families and models. Using templates and or models, Students write or symbolize a number sentence from a problem-solving situation. Students identify addition problems with the commutative property of addition. Students extend a repeating pattern.

| Topic | Gr | Goal | Objectives | Essence | Extended Content Indicators |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 2.M.3.1 | Goal 3.1: Use algebraic <br> symbolism as a tool to <br> represent mathematical <br> relationships. | 2.M.3.1.1 Write addition and <br> subtraction problems <br> vertically and horizontally. <br> $(280.01 . \mathrm{a})$ | 2.M.3.1.1A <br> Express addition \& subtraction problems using a concrete system. |  |
|  |  |  | 2.M.3.1.2 Write a number <br> sentence from an addition or <br> subtraction problem-solving <br> situation. (278.02.a) | 2.M.3.1.3 Show the <br> relationship between addition <br> and subtraction using fact <br> families. (280.01.d) | 2.M.3.1.2A <br> Use concrete objects or pictures to symbolize a number sentence when given an addition word <br> problem. |
|  |  |  | 2.M.3.1.4 Compare numbers <br> to 999 using the vocabulary <br> words/phrases of less than, <br> greater than, equal to. <br> (280.01.c) | 2.M.3.1.3 A <br> Show the relationship between addends in fact families using concrete objects or pictures up to <br> sums of 5. |  |
|  |  |  | 2.M.3.1.4 A <br> Compare objects or pictures using the vocabulary (less than, more than, equal to, more, less, <br> same, bigger, smaller, etc). |  |  |

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|  | 2.M.3.2 | Goal 3.2: Evaluate algebraic expressions. | 2.M.3.2.1 Use the commutative property of addition. |  | 2.M.3.2.1 A <br> Use the commutative property of addition with concrete objects or pictures to solve simple problems (e.g. $3+1=4$ then $1+3=$ ?. |
|  |  |  | 2.M.3.2.2 Solve addition problems using the commutative property (e.g., If $7+5=12$, then what is $5+$ 7?). |  | 2.M.3.2.2 A <br> Match corresponding addition problems (e.g., $1+2=3$, then $2+1=3$ ). |

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|  | $2 . M .3 .3$ | Goal 3.3: Solve algebraic <br> equations and inequalities. | No objectives at this grade <br> level. | No objectives at this grade level. |  |
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|  | 2.M.3.4 | Goal 3.4: Understand the <br> concept of functions. | 2.M.3.4.1 Translate a <br> repeating pattern from one <br> representation to another <br> (e.g., even, odd, even, odd <br> translates to ABAB). <br> (283.01.a) | 2.M.3.4.1A <br> Extend a simple repeating pattern (e.g. ABCABC...). |  |
|  |  | 2.M.3.4.2 Use appropriate <br> vocabulary. (283.01.c) |  | 2.M.3.4.2 A <br> Attend to appropriate vocabulary. |  |
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|  | $2 . \mathrm{M} .3 .5$ | Goal 3.5: Represent <br> equations, inequalities and <br> functions in a variety of <br> formats. | No objectives at this grade <br> level. |  | No objectives at this grade level. |
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|  | $2 . M .3 .6$ | Goal 3.6: Apply functions to <br> a variety of problems. | No objectives at this grade <br> level. | No objectives at this grade level. |  |
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Standard 4: Concepts and Principles of Geometry - Students in Grade 2, recognize, name, build, compare and sort the two- and three-dimensional shapes of triangles, squares, circles, rectangles, cones, cubes, spheres, and cylinders. Students draw a line of symmetry.

Extended Standard 4: Students in Grade 2, recognize, name, and sort simple dimensional shapes, such as triangles, squares, circles. Students identify a line of symmetry.

| Topic | Gr | Goal | Objective | Essence |  |
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|  | 2.M.4.1 | Goal 4.1: Apply concepts of <br> size, shape, and spatial <br> relationships. | 2.M.4.1.1 Recognize, name, <br> build, compare, and sort the <br> two- and thre-dimensional <br> shapes of triangles, <br> rectangles, squares, circles, <br> cones, cubes, sheres, <br> cylinders, and pyramids. <br> (281.01.a) | 2.M.4.1.1.A <br> Recognize, name, and sort the two dimensional shapes of triangles, squares, and circles |  |
|  |  |  | 2.M.4.1.2 Sort and classify <br> objects by more than one <br> attribute. (283.01.b) |  | 2. M.4.1.2 A Sort or classify objects by more than one attribute. |
|  |  | 2.M.4.1.3 Draw a line of <br> symmetry. (281.01.b) |  | 2.M.4.1.3.A <br> Indicate a line of symmetry. |  |
|  |  | 2.M.4.1.4 Use appropriate <br> vocabulary. (281.01.d) |  | 2.M.4.1.4 A <br> Attend to appropriate vocabulary. |  |

Standard 4: Concepts and Principles of Geometry - Students in Grade 2, recognize, name, build, compare and sort the two- and three-dimensional shapes of triangles, squares, circles, rectangles, cones, cubes, spheres, and cylinders. Students draw a line of symmetry.

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| Topic | Gr | Goal | Objective | Essence |  |
| :--- | :---: | :--- | :--- | :--- | :--- |
|  | 2 M .4 .2 | Goal 4.2: Appl the geometry <br> of right triangles. | No objectives at this grade <br> level. |  | No objectives at this grade level. |
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|  | 3 | Goal 4.3: Apply graphing in <br> two dimensions. | 2.M.4.3.1 Indicate whether <br> a number is above or below <br> a benchmark number of <br> 1000 or less on a number <br> line. | 2.M.4.3.1.A <br> Indicate whether a number is above or below a benchmark (number of 10 or less on a <br> number line. |  |
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Standard 5: Data Analysis, Probability, and Statistics - Students in Grade 2 interpret information found in simple tables, charts, and graphs. Students gather and display data in tables, charts and graphs in order to answer a question.

Extended Standard 5: Students in Grade 2 identify information found in simple tables, charts, or graphs. Students use data in tables, charts and graphs in order to answer a question.

| Topic | Gr | Goal | Objective | Essence | Extended Content Indicators |
| :---: | :---: | :--- | :--- | :--- | :--- |
|  | 2.M.5.1 | Goal 5.1: Understand data <br> analysis. | 2.M.5.1.1 Interpret information <br> found in simple tables, charts, <br> bar graphs, and pictographs. <br> (282.01.a) | 2.M.5.1.1.A <br> Identify information found in simple bar graphs or pictographs. |  |
|  |  |  | 2.M.5.1.2 Use appropriate <br> vocabulary. (282.01.b) | 2.M.5.1.2 A <br> Attend to appropriate vocabulary. |  |

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|  | $2 . M .5 .2$ | Goal 5.2: Collect, organize, <br> and display data. | 2.M.5.2.1 Gather and display <br> data in tables, charts, and bar <br> graphs in order to answer a <br> question. (282.02.a) | 2.M.5.2.1.A <br> Use data in bar graphs in order to answer a question. |  |
|  |  |  |  | 2.M.5.2.2.A <br> Use tally marks, pictures, or objects to represent data. |  |

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| :--- | :---: | :--- | :--- | :--- | :--- |
|  | $2 . M .5 .3$ | Goal 5.3: Apply simple <br> statistical measurements. | No objectives at this grade <br> level. | Extended Content Indicators |  |
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|  | 2.M.5.4 | Goal 5.4: Understand basic <br> concepts of probability. | No objectives at this grade <br> level. |  | No objectives at this grade level. |
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|  | $2 . M .5 .5$ | Goal 5.5: Make predictions or decisions based on data. | No objectives at this grade level. |  |  |
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