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Standards adopted 2/12/2020 and implemented in the 2022/2023 school year. <u>Florida's B.E.S.T. Standards Mathematics</u>

DM = Dimensions Math

Kindergarten

| Standard | Standard Description | DM | Chapter | Lesson | | |
|-------------------------------|---|---------|------------|----------------------|--|--|
| Number Sense and Operations | | | | | | |
| Develop an und | derstanding for counting using objects in a | a set. | | | | |
| MA.K.NSO.1.1 | Given a group of up to 20 objects, count the number of objects in that | KA | 2 | 1, 2, 3, 4, 5, 10 | | |
| | group and represent the number of | | 3 | 1-6 | | |
| | number of objects in a rearrangement of that group without recounting. | KB | 10 | 1-4 | | |
| MA.K.NSO.1.2 | Given a number from 0 to 20, count out | KA | 2 | 1, 2 | | |
| | that many objects. | | 3 | 1-5 | | |
| | | KB | 10 | 1, 2, 3 | | |
| MA.K.NSO.1.3 | Identify positions of objects within a sequence using the words "first," "second," "third," "fourth" or "fifth." | КА | 3 | 11 | | |
| MA.K.NSO.1.4 | Compare the number of objects from 0 | KA | 6 | 1-4 | | |
| | to 20 in two groups using the terms less than, equal to or greater than. | KB | 7 | 9 | | |
| Recite number place value. | names sequentially within 100 and develo | p an ui | nderstandi | ng of | | |
| MA.K.NSO.2.1 | Recite the number names to 100 by ones and by tens. Starting at a given number, count forward within 100 and backward within 20. | KB | 12 | 1-8 | | |
| MA.K.NSO.2.2 | Represent whole numbers from 10 to 20, using a unit of ten and a group of ones, with objects, drawings and expressions or equations. | KB | 7 | 1-4 | | |
| MA.K.NSO.2.3 | Locate, order and compare numbers | KA | 6 | 1-4 | | |
| | from 0 to 20 using the number line and terms less than, equal to or greater than. | KB | 7 | 9 | | |



| Standard | Standard Description | DM | Chapter | Lesson | |
|---|--|--------|-----------|--------|--|
| Develop an understanding of addition and subtraction operations with one-digit whole numbers. | | | | | |
| MA.K.NSO.3.1 | Explore addition of two whole numbers | KB | 8 | 1–11 | |
| | from 0 to 10, and related subtraction | | 9 | 1-6 | |
| | | 10 1 | 1-6 | | |
| | | | 11 | 1 | |
| MA.K.NSO.3.2 | Add two one-digit whole numbers with | KB | 9 | 7-12 | |
| | sums from 0 to 10 and subtract using related facts with procedural reliability. | | 10 | 7-10 | |
| Algebraic Reasoning | | | | | |
| Represent and subtraction pro | solve addition problems with sums betwee blems using related facts. | n 0 an | id 10 and | | |
| MA.K.AR.1.1 | For any number from 1 to 9, find the number that makes 10 when added to the given number. | KB | 8 | 11 | |
| MA.K.AR.1.2 | Given a number from 0 to 10, find the different ways it can be represented as the sum of two numbers. | КВ | 8 | 1-11 | |
| MA.K.AR.1.3 | Solve addition and subtraction real- world problems using objects, drawings or equations to represent the problem. | КВ | 11 | 1-6 | |
| Develop an und | derstanding of the equal sign. | | | | |
| MA.K.AR.2.1 | Explain why addition or subtraction | KB | 9 | 1-12 | |
| | equations are true using objects or drawings. | | 10 | 1-10 | |



| Standard | Standard Description | DM | Chapter | Lesson |
|-----------------|--|----------|---------|------------------|
| | Measurement | | | |
| Identify and co | mpare measurable attributes of objects. | | | |
| MA.K.M.1.1 | Identify the attributes of a single object that can be measured such as length, volume or weight. | KA | 5 | 1-10 |
| MA.K.M.1.2 | Directly compare two objects that have an attribute which can be measured in common. Express the comparison using language to describe the difference. | КА | 5 | 1-10 |
| MA.K.M.1.3 | Express the length of an object, up to 20 | KA | 5 | 4 |
| | units long, as a whole number of lengths by laying non-standard objects end to end with no gaps or overlaps. Students compare lengths of up to 10 units in DM K. | 1B | 10 | 4 |
| | Geometric Reasoning | | | |
| Identify, compa | re and compose two- and three-dimensior | nal figu | ires. | |
| MA.K.GR.1.1 | Identify two- and three-dimensional figures regardless of their size or orientation. Figures are limited to circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders. | КА | 4 | 2, 4, 5, 6, 9 |
| MA.K.GR.1.2 | Compare two-dimensional figures based on their similarities, differences and positions. Sort two-dimensional figures based on their similarities and differences. Figures are limited to circles, triangles, rectangles and squares | КА | 4 | 4, 5, 6, 9 |
| MA.K.GR.1.3 | Compare three-dimensional figures based on their similarities, differences and positions. Sort three-dimensional figures based on their similarities and differences. Figures are limited to spheres, cubes, cones and cylinders. | КА | 4 | 2, 11 |



| Standard | Standard Description | DM | Chapter | Lesson |
|----------------|---|--------|------------|---------------------|
| MA.K.GR.1.4 | Find real-world objects that can be modeled by a given two- or three- dimensional figure. Figures are limited to circles, triangles, rectangles, squares, spheres, cubes, cones and cylinders. | KA | 4 | 1, 2, 4, 5, 6, 9 |
| MA.K.GR.1.5 | Combine two-dimensional figures to form a given composite figure. Figures used to form a composite shape are limited to triangles, rectangles and squares. Hexagons are also included. | KA | 4 | 10 |
| | Data Analysis and Probability | / | | |
| Develop an und | derstanding for collecting, representing a | nd con | nparing da | ta. |
| MA.K.DP.1.1 | Collect and sort objects into | KA | 1 | 2-6 |
| | categories and compare the categories by counting the objects in each category. Report the results verbally, with a written numeral or with drawings. | | 4 | 11 |



| Standard | Standard Description | DM | Chapter | Lesson |
|-----------------|--|--------|-------------|---------|
| | Number Sense and Operation | าร | | |
| Extend counting | sequences and understand the place va | lue of | two-digit n | umbers. |
| MA.1.NSO.1.1 | Starting at a given number, count | 1B | 16 | 3 |
| | forward and backwards within 120 by | | 18 | 3 |
| | ones. Skip count by 2s to 20 and by | | 19 | 1 |
| | Students count within 100, not 120, | | | |
| | in the textbook, since the focus is on | | | |
| | place value. They do not skip count | | | |
| | by twos in DM 1, but they do identify | | | |
| | another number. Counting by 5s to | | | |
| | 50 was covered in KB and is | | | |
| | reviewed in DM 1 in the context of | | | |
| | telling time and counting coins. | | _ | |
| 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 | 1A | 5 | 1 |
| | | 1B | 12 | 1, 2 |
| | | | 16 | 1, 2 |
| | expanded form. | | | |
| MA.1.NSO.1.3 | Compose and decompose two-digit | 1A | 5 | 1 |
| | numbers in multiple ways using tens | 1B | 12 | 1, 2 |
| | and ones. Demonstrate each | | 16 | 1, 2 |
| | objects, drawings and expressions or | | | |
| | equations. | | | |
| MA.1.NSO.1.4 | Plot, order and compare whole | 1B | 12 | 4 |
| | numbers up to 100. | | 16 | 4 |
| | Students use a 100 chart, rather than | | | |
| | numbers in DM 1 on a number line. | | | |
| | They do use place value to compare | | | |
| | numbers. They do not use the | | | |
| | symbols $>$ and $<$ until DM 2. | | | |

| Standard | Standard Description | DM | Chapter | Lesson |
|---|---|---------|-------------|---------|
| Develop an unde two-digit numbe | erstanding of addition and subtraction o rs. | peratio | ons with on | e- and |
| MA.1.NSO.2.1 | Recall addition facts with sums to 10 | 1A | 2 | 7 |
| | and related subtraction facts with automaticity. | | 3 | 7, 8 |
| MA.1.NSO.2.2 | Add two whole numbers with sums | 1A | 6 | 1-5 |
| | from 0 to 20, and subtract using related facts with procedural reliability. | | 7 | 1-6 |
| MA.1.NSO.2.3 | Identify the number that is one more, | 1B | 12 | 3 |
| | one less, ten more and ten less than a given two-digit number. | | 16 | 3 |
| MA.1.NSO.2.4 | Explore the addition of a two-digit | 1B | 13 | 1, 2 |
| | number and a one-digit number with sums to 100. | | 17 | 1, 2, 3 |
| MA.1.NSO.2.5 | Explore subtraction of a one-digit | 1B | 13 | 2 |
| | number from a two-digit number. | | 17 | 6-9 |
| | Fractions | | | |
| 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. | 1B | 15 | 1-3 |



| Standard | Standard Description | DM | Chapter | Lesson |
|---|---|---------|-------------|-----------|
| | Algebraic Reasoning | | | |
| Solve addition pr using related fact | oblems with sums between 0 and 20 an s. | ıd subt | raction pro | blems |
| MA.1.AR.1.1 | Apply properties of addition to find a sum of three or more whole numbers. | 1B | 13 | 7 |
| MA.1.AR.1.2 | Solve addition and subtraction real- | 1A | 3-7 | 1-8 |
| | world problems using objects, | | 4 | 1–10 |
| | drawings or equations to represent | | 5 | 1-7 |
| | Nearly every lesson in DM has word | | 6 | 1-5 |
| | problems which they solve using various strategies. | | 7 | 1-6 |
| MA.1.AR.2.1 | Restate a subtraction problem as a missing addend problem using the relationship between addition and subtraction. | 1A | 4 | 1, 2, 6-8 |
| Develop an unc | derstanding of the relationship between | additio | on and sub | traction. |
| MA.1.AR.2.2 | Determine and explain if equations | 1A | 3 | 8 |
| | involving addition or subtraction are | | 4 | 10 |
| | true or false. | | 6 | 5 |
| | | | 7 | 6 |
| MA.1.AR.2.3 | Determine the unknown whole | 1A | 3 | 4, 8 |
| | number in an addition or subtraction | | 4 | 4, 6, 10 |
| | equation, relating three whole | | 5 | 2, 7 |
| | position. | | 6 | 5 |



| Standard | Standard Description | DM | Chapter | Lesson | | | |
|-------------------|---|---------|------------|-------------|--|--|--|
| | Measurement | | | | | | |
| Compare and me | easure 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. Only nonstandard units are used in DM 1. Standards units are introduced in DM 2. | 1B | 10 | 3 | | | |
| | | 2A | 4 | 1, 5 | | | |
| MA.1.M.1.2 | Compare and order the length of up to three objects using direct and indirect comparison. | 1B | 10 | 1-4 | | | |
| Tell time and ide | ntify the value of coins and combination | s of co | ins and do | llar bills. | | | |
| MA.1.M.2.1 | Using analog and digital clocks, tell and write time in hours and half- hours. | 1B | 18 | 1, 2 | | | |
| 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. | 1B | 19 | 1, 2 | | | |
| 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. | 1B | 19 | 1-5 | | | |



| Standard | Standard Description | DM | Chapter | Lesson |
|--------------------------------|---|---------|-------------|--------|
| | Geometric Reasoning | | | |
| Identify and analy attributes. | yze two- and three-dimensional figures l | oased c | on their de | fining |
| 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. | 1A | 8 | 1, 2 |
| MA.1.GR.1.2 | Sketch two-dimensional figures when given defining attributes. Figures are limited to triangles, rectangles, squares and hexagons. Drawing activities are in the Teacher's Guide for all the lessons in chapter 8 and in the workbook for the indicated lessons. | 1A | 8 | 3, 4 |
| 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. | 1A | 8 | 3 |
| 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. | 1A | 8 | 1 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|-------------------------------|--|-----------|----------|--------|--|
| Data Analysis and Probability | | | | | |
| Collect, represen | t and interpret data using pictographs a | and tally | y marks. | | |
| MA.1.DP.1.1 | Collect data into categories and represent the results using tally marks or pictographs. Tally marks are not used in DM 1; they are introduced in DM 2. | 1B | 11 | 3 | |
| 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. Tally marks are not used in DM 1. | 18 | 11 | 3 | |



| Standard | Standard Description | DM | Chapter | Lesson |
|----------------|---|----|---------|----------------|
| | Number Sense and Operation | S | | |
| Understand the | place value of three-digit numbers. | | | |
| MA.2.NSO.1.1 | Read and write numbers from 0 to 1,000 using standard form, expanded form and word form. | 2A | 1 | 4, 5 |
| MA.2.NSO.1.2 | Compose and decompose three-digit numbers in multiple ways using hundreds, tens and ones. Demonstrate each composition or decomposition with objects, drawings and expressions or equations. | 2A | 1 | 4, 5 |
| MA.2.NSO.1.3 | Plot, order and compare whole numbers up to 1,000. Students do not plot numbers on a number line until DM 3. They use place value to compare numbers. | 2A | 1 | 6 |
| MA.2.NSO.1.4 | Round whole numbers from 0 to 100 to the nearest 10. | 3A | 1 | 10 |
| Add and subtra | act two- and three-digit whole numbers. | | | |
| MA.2.NSO.2.1 | Recall addition facts with sums to 20 | 1A | 6 | 1-5 |
| | and related subtraction facts with | | 7 | 1-6 |
| | Students are expected to know addition facts with sums to 20 before DM 1B. | 2A | 2 | 1–5 |
| MA.2.NSO.2.2 | Identify the number that is ten more, ten less, one hundred more and one hundred less than a given three-digit number. | 2A | 1 | 7 |
| MA.2.NSO.2.3 | Add two whole numbers with sums up to 100 with procedural reliability. | 1B | 17 | 4, 5,10, 12 |
| | Subtract a whole number from a whole number, each no larger than 100, with procedural reliability. All the lessons in chapter 3 of 2A also include addition and subtraction within 1,000. | 2A | 3 | 1-12 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|--------------------------|--|----------|-------------|---------|--|
| MA.2.NSO.2.4 | Explore the addition of two whole numbers with sums up to 1,000. Explore the subtraction of a whole number from a whole number, each no larger than 1,000. | 2A | 3 | 1-12 | |
| Fractions | | | | | |
| Develop an und | derstanding of fractions. | 1 | 1 | 1 | |
| MA.2.FR.1.1 | Partition circles and rectangles into two, three or four equal-sized parts. Name the parts using appropriate language, and describe the whole as two halves, three thirds or four fourths. | 2B | 11 | 1, 2 | |
| MA.2.FR.1.2 | Partition rectangles into two, three or four equal-sized parts in two different ways showing that equal-sized parts of the same whole may have different shapes. | 2B | 11 | 1, 2 | |
| | Algebraic Reasoning | | | | |
| Solve addition problems. | problems with sums between 0 and 100 ar | nd relat | ted subtrac | tion | |
| MA.2.AR.1.1 | Solve one- and two-step addition and | 2A | 2 | 1-5 | |
| | subtraction real-world problems. | | 3 | 1-10 | |
| Demonstrate ar | n understanding of equality and addition a | nd sub | traction. | | |
| MA.2.AR.2.1 | Determine and explain whether equations involving addition and subtraction are true or false. | 2A | 3 | 3, 12 | |
| MA.2.AR.2.2 | Determine the unknown whole number | 2A | 2 | 1, 2, 5 | |
| | in an addition or subtraction equation, relating three or four whole numbers, with the unknown in any position. | | 3 | 4, 6 | |
| Develop an und | Develop an understanding of multiplication. | | | | |
| MA.2.AR.3.1 | Represent an even number using two equal groups or two equal addends. Represent an odd number using two equal groups with one left over or two equal addends plus 1. | 3A | 4 | 6 | |



| Standard | Standard Description | DM | Chapter | Lesson |
|------------------|---|---------|---------|---------------|
| MA.2.AR.3.2 | Use repeated addition to find the total number of objects in a collection of equal groups. Represent the total number of objects using rectangular arrays and equations. The total number is not limited to 25 in DM. | 2A | 6 | 1, 2 |
| | Measurement | | | |
| Measure the le | ngth of objects and solve problems involving | ng leng | gth. | r |
| MA.2.M.1.1 | Estimate and measure the length of an object to the nearest inch, foot, yard, centimeter or meter by selecting and using an appropriate tool. | 2A | 4 | 1-8 |
| MA.2.M.1.2 | Measure the lengths of two objects using the same unit and determine the difference between their measurements. | 2A | 4 | 1, 3, 5, 7 |
| MA.2.M.1.3 | Solve one- and two-step real-world measurement problems involving addition and subtraction of lengths given in the same units. | 2A | 4 | 1-8 |
| Tell time and so | blve problems involving money. | | · | |
| MA.2.M.2.1 | Using analog and digital clocks, tell and | 1B | 18 | 3 |
| | write time to the nearest five minutes using a.m. and p.m. appropriately. Express portions of an hour using the fractional terms half an hour, half past, quarter of an hour, quarter after and quarter til. Students tell time to the nearest minute in DM. | 2B | 12 | 1-4 |



| Standard | Standard Description | DM | Chapter | Lesson |
|------------------|---|---------|-----------|--------|
| MA.2.M.2.2 | Solve one- and two-step addition and | 1B | 19 | 4 |
| | subtraction real-world problems involving either dollar bills within \$100 or coins within 100¢ using \$ and ¢ symbols appropriately. Instruction in DM 2 includes using a dot to separate dollars and cents, and the addition and subtraction of amounts within \$9.99. | 2B | 10 | 1 |
| | Geometric Reasoning | | | |
| Identify and and | alyze two-dimensional figures and identify | lines o | fsymmetry | /. |
| MA.2.GR.1.1 | Identify and draw two-dimensional | 1A | 8 | 1, 2 |
| | figures based on their defining attributes. Figures are limited to triangles, rectangles, squares, pentagons, hexagons and octagons. | 2B | 15 | 2 |
| MA.2.GR.1.2 | Categorize two-dimensional figures | 1A | 8 | 2 |
| | based on the number and length of sides, number of vertices, whether they are closed or not and whether the edges are curved or straight. | 1B | 15 | 1, 2 |
| MA.2.GR.1.3 | Identify line(s) of symmetry for a two- dimensional figure | 4B | 16 | 5 |
| Describe perim | neter and find the perimeter of polygons. | | | |
| MA.2.GR.2.1 | Explore perimeter as an attribute of a figure by placing unit segments along the boundary without gaps or overlaps. Find perimeters of rectangles by counting unit segments. Students are given lengths of sides and find the distance around but do not formally study perimeter in DM 2. | 3В | 13 | 5 |
| MA.2.GR.2.2 | Find the perimeter of a polygon with whole-number side lengths. Polygons are limited to triangles, rectangles, squares and pentagons. | 3B | 13 | 6 |



| Standard | Standard Description | DM | Chapter | Lesson | | |
|-------------------------------|---|---------|----------------|----------|--|--|
| Data Analysis and Probability | | | | | | |
| Collect, catego units. | rize, represent and interpret data using ap | propria | ate titles, la | bels and | | |
| MA.2.DP.1.1 | Collect, categorize and represent data using tally marks, tables, pictographs or bar graphs. Use appropriate titles, labels and units. | 2B | 14 | 1-3 | | |
| MA.2.DP.1.2 | Interpret data represented with tally marks, tables, pictographs or bar graphs including solving addition and subtraction problems. DM 2 includes multiplication by 2, 3, 4, or 5. | 2В | 14 | 1-3 | | |



| Standard | Standard Description | DM | Chapter | Lesson |
|------------------------------------|--|--------|---------|-------------|
| | Number Sense and Operations | | | |
| Understand the | e place value of four-digit numbers. | | | |
| MA.3.NSO.1.1 | Read and write numbers from 0 to 10,000 using standard form, expanded form and word form. | 3A | 1 | 1, 2, 3 |
| MA.3.NSO.1.2 | Compose and decompose four-digit numbers in multiple ways using thousands, hundreds, tens and ones. Demonstrate each composition or decomposition using objects, drawings and expressions or equations. | 3А | 1 | 1, 2, 3 |
| MA.3.NSO.1.3 | Plot, order and compare whole numbers up to 10,000. | 3A | 1 | 4-5 |
| MA.3.NSO.1.4 | Round whole numbers from 0 to 1,000 to the nearest 10 or 100. | 3A | 1 | 9, 10 |
| Add and subtra multiplication a | act multi-digit whole numbers. Build an und Ind division operations. | erstan | ding of | |
| MA.3.NSO.2.1 | Add and subtract multi-digit whole numbers including using a standard algorithm with procedural fluency | 3A | 3 | 1-7 |
| MA.3.NSO.2.2 | Explore multiplication of two whole | 2A | 6 | 1–7 |
| | numbers with products from 0 to 144, | | 7 | 1–10 |
| | And related division facts. | 2B | 9 | 1-9 |
| | factor is 2, 3, 4, or 5 is in DM 2. This is | 3A | 4 | 1-4 |
| | reviewed in DM 3 and then they learn the facts when either factor is 1-10. They also learn to multiply 2-digit and 3-digit numbers by a 1-digit number. Products are within 1,000. Students only learn to multiply 11 and 12 by 1-9 in the context of multiplying any 2-digit number in 3A chapter 5. | 3B | 8 | 1-3, 6-8 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|---|---|-------|---------|-------------|--|
| MA.3.NSO.2.3 | Multiply a one-digit whole number by a multiple of 10, up to 90, or a multiple of 100, up to 900, with procedural reliability. | 3A | 5 | 1 | |
| MA.3.NSO.2.4 | Multiply two whole numbers from 0 to | 2A | 7 | 1-10 | |
| | 12 and divide using related facts with | 2B | 9 | 1-9 | |
| | procedural reliability. | 3A | 4 | 1-4 | |
| number by a 2-digit number (11 a by 11 or 12) in DM 4, not DM 3. | number by a 2-digit number (11 and 12 by 11 or 12) in DM 4, not DM 3. | 3B | 8 | 1-3, 6-8 | |
| Fractions | | | | | |
| Understand frac Denominators a | ctions as numbers and represent fractions. are not limited to 2, 3, 4, 5, 6, 8, 10, and 12 | | | | |
| MA.3.FR.1.1 | Represent and interpret unit fractions in | 2B | 2B 11 | 2 | |
| | the form 1/ <i>n</i> as the quantity formed by one part when a whole is partitioned into n equal parts. | 3B | 9 | 1 | |
| MA.3.FR.1.2 | Represent and interpret fractions, | 2B | 11 | 3, 4 | |
| | including fractions greater than one, in the form of <i>m/n</i> as the result of adding the unit fraction 1/ <i>n</i> to itself <i>m</i> times. | 3B | 9 | 1, 2 | |
| MA.3.FR.1.3 | Read and write fractions, including fractions greater than one, using standard form, numeral-word form and word form. | 3B | 9 | 2 | |
| Order and com | pare fractions and identify equivalent fract | ions. | • | | |
| Denominators are not limited to 2, 3, 4, 5, 6, 8, 10, and 12 in DM. | | | | | |
| MA.3.FR.2.1 | Plot, order and compare fractional numbers with the same numerator or the same denominator. | 3B | 9 | 3, 4 | |
| MA.3.FR.2.2 | Identify equivalent fractions and explain why they are equivalent. | 3B | 10 | 1-2 | |

| Standard | Standard Description | DM | Chapter | Lesson |
|--|---|---------|---------|---------------|
| | Algebraic Reasoning | | | |
| Solve multiplic | ation and division problems. | | | |
| MA.3.AR.1.1 Apply the distributive property to multiply a one-digit number and to digit number. Apply properties of multiplication to find a product of digit whole numbers. | Apply the distributive property to | 3A | 4 | 2 |
| | multiply a one-digit number and two- | | 5 | 2, 3 |
| | multiplication to find a product of one- digit whole numbers. | 3B | 8 | 1, 2, 6, 7 |
| MA.3.AR.1.2 | Solve one- and two-step real-world | 3A | 2 | 8-12 |
| | problems involving any of four | | 4 | 7-10 |
| | operations with whole numbers | | 5 | 9 |
| | | | 6 | 9 |
| Develop an un | derstanding of equality and multiplication a | and div | vision. | |
| MA.3.AR.2.1 | Restate a division problem as a missing | 2A | 7 | 4-6 |
| | factor problem using the relationship between multiplication and division. | | 8 | 8-10 |
| | | 2B | 9 | 3, 7 |
| | | 3A | 4 | 3-5 |
| | | 3B | 8 | 1, 2, 6, 7 |
| MA.3.AR.2.2 | Determine and explain whether an equation involving multiplication or division is true or false. Students are not specifically asked in DM 3 if, for example, $27 \div 5 = 3 \times 3$, but they do fill in unknows in this type of equation. | 3A | 5 | 11 |
| MA.3.AR.2.3 | Determine the unknown whole number | 2A | 7 | 4-6 |
| | in a multiplication or division equation, | | 8 | 8-10 |
| unknown in any position | unknown in any position. | 2B | 9 | 3, 7 |
| | | ЗA | 4 | 3-5 |
| | | 3B | 8 | 1, 2, 6, 7 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|---------------------------------------|--|--------|------------|--------------|--|
| Identify numer | ical patterns, including multiplicative patter | ns. | | | |
| MA.3.AR.3.1 | Determine and explain whether a whole | 3A | 4 | 6 | |
| | number from 1 to 1,000 is even or odd. | 3A | 6 | 3 | |
| MA.3.AR.3.2 | Determine whether a whole number | 3A | 4 | 5 | |
| | from 1 to 144 is a multiple of a given | | 6 | 2-9 | |
| In DM 3, they determine if there is a | In DM 3, they determine if there is a | 3B | 8 | 4, 9 | |
| | remainder for a division problem for numbers to 1,000. | 4A | 3 | 1 | |
| MA.3.AR.3.3 | Identify, create and extend numerical | 3A | 1 | 7 | |
| | patterns. | 5B | 12 | 5 | |
| Measurement | | | | | |
| Measure attrib | utes of objects and solve problems involvin | ig mea | asurement. | | |
| MA.3.M.1.1 | Select and use appropriate tools to measure the length of an object, the volume of liquid within a beaker and temperature. Measuring temperature is not included in DM 1-5. | 2A | 4 | 1, 3, 5-7 | |
| | | 2B | 13 | 1-3 | |
| MA.3.M.1.2 | Solve real-world problems involving any | 2A | 4 | 1-8 | |
| | of the four operations with whole | | 5 | 1-4 | |
| | number lengths, masses, weights, temperatures or liquid volumes | 2B | 13 | 1-3 | |
| | | 3B | 11 | 1-8 | |
| Tell and write t | ime and solve problems involving time. | | | | |
| MA.3.M.2.1 | Using analog and digital clocks tell and | 2A | 12 | 1, 3 | |
| | write time to the nearest minute using a.m. and p.m. appropriately. | 3B | 14 | 1 | |
| MA.3.M.2.2 | Solve one- and two-step real-world | 2A | 12 | 2 | |
| | problems involving elapsed time. | 3B | 14 | 2-7 | |





| Standard | Standard Description | DM | Chapter | Lesson |
|-----------------|---|----------|--------------|---------------|
| | Geometric Reasoning | | ľ | |
| Describe and id | dentify relationships between lines and clas | ssify qu | uadrilateral | s. |
| MA.3.GR.1.1 | Describe and draw points, lines, line segments, rays, intersecting lines, perpendicular lines and parallel lines. Identify these in two-dimensional figures. | 4B | 16 | 1-4 |
| MA.3.GR.1.2 | Identify and draw quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares and trapezoids. | 4B | 16 | 3-4 |
| MA.3.GR.1.3 | Draw line(s) of symmetry in a two- dimensional figure and identify line symmetric two-dimensional figures. | 4B | 16 | 6 |
| Solve problems | s involving the perimeter and area of rectar | ngles. | | |
| MA.3.GR.2.1 | Explore area as an attribute of a two- dimensional figure by covering the figure with unit squares without gaps or overlaps. Find areas of rectangles by counting unit squares. | 3B | 13 | 1, 2 |
| MA.3.GR.2.2 | Find the area of a rectangle with whole- number side lengths using a visual model and a multiplication formula. | 3B | 13 | 3 |
| MA.3.GR.2.3 | Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model and a formula. | 3B | 13 | 3, 5, 6, 9 |
| MA.3.GR.2.4 | Solve mathematical and real-world problems involving the perimeter and area of composite figures composed of non-overlapping rectangles with whole number side lengths. | 3B | 13 | 4-9 |



| Standard | Standard Description | DM | Chapter | Lesson | | |
|-------------------------------|---|---------|---------|--------|--|--|
| Data Analysis and Probability | | | | | | |
| Collect, represe | ent and interpret numerical and categorica | l data. | | | | |
| MA.3.DP.1.1 | Collect and represent numerical and | 3A | 3A 7 | 1-3 | | |
| | categorical data with whole-number values using tables, scaled pictographs, scaled bar graphs or line plots. Use appropriate titles, labels and units. | 4A | 9 | 3 | | |
| MA.3.DP.1.2 | Interpret data with whole-number values | 3A | 3A 7 1 | 1-3 | | |
| | represented with tables, scaled pictographs, circle graphs, scaled bar graphs or line plots by solving one- and two-step problems. There are no circle graphs in DM. Line plots are in DM 4. | 4A | 9 | 3 | | |



| Standard | Standard Description | DM | Chapter | Lesson | |
|-----------------|--|---------------------------|---------|-------------|--|
| | Number Sense and Operation | S | | | |
| Understand pla | ce value for multi-digit numbers. | | | | |
| MA.4.NSO.1.1 | Express how the value of a digit in a multi-digit whole number changes if the digit moves one place to the left or right. | 4A | 1 | 1, 2 | |
| MA.4.NSO.1.2 | Read and write multi-digit whole numbers from 0 to 1,000,000 using standard form, expanded form and word form. | 4A | 1 | 1, 2 | |
| MA.4.NSO.1.3 | Plot, order and compare multi-digit whole numbers up to 1,000,000. | 4A | 1 | 4 | |
| MA.4.NSO.1.4 | Round whole numbers from 0 to 10,000 to the nearest 10, 100 or 1,000. | 4A | 1 | 5, 6 | |
| MA.4.NSO.1.5 | Plot, order and compare decimals up to the hundredths | 4B | 12 | 1-4, 8 | |
| Build an unders | standing of operations with multi-digit num | nbers including decimals. | | | |
| MA.4.NSO.2.1 | Recall multiplication facts with factors | 3A | 4 | 1-4 | |
| | up to 12 and related division facts with | | 5 | 2, 3 | |
| | DM 3B covers factors up to 10 and | | 6 | 2, 3, 4 | |
| | multiplying a 2-digit or 3-digit number by a 1-digit number. DM 4A includes | 3B | 8 | 1-3, 6-8 | |
| | multiplying a 2-digit number by a 2- digit number, i.e. 11 x 12 or 12 x 12, using place-value concepts, but not division by a 2-digit number. | 4A | 4 | 1-6 | |
| MA.4.NSO.2.2 | Multiply two whole numbers, up to | 3A | 5 | 1-9 | |
| | three digits by up to two digits, with procedural reliability. DM 4A includes multiplying 4-digit numbers. | 4A | 4 | 1-8 | |



| Standard | Standard Description | DM | Chapter | Lesson |
|--------------|---|---------------|---------|---------------|
| MA.4.NSO.2.3 | Multiply two whole numbers, each up to two digits, including using a standard algorithm with procedural fluency. DM 4A includes multiplying 4-digit numbers. | 4A | 4 | 1-8 |
| MA.4.NSO.2.4 | Divide a whole number up to four digits | 3A | 6 | 1-9 |
| | by a one-digit whole number with procedural reliability. Represent remainders as fractional parts of the divisor. DM 3A covers dividing 2-digit and 3- digit numbers. This is reviewed in the context of dividing a 4-digit number in DM 4 | 4A | 5 | 2-4 |
| MA.4.NSO.2.5 | Explore the multiplication and division | 3A 5 6 3B 8 | 5 | 1-9 |
| | of multi-digit whole numbers using | | 6 | 1-9 |
| | estimation, rounding and place value. | | 8 | 3, 4, 8, 9 |
| | | 4A | 4 | 1-8 |
| | | | 5 | 1-7 |
| MA.4.NSO.2.6 | Identify the number that is one-tenth more, one-tenth less, one-hundredth more and one-hundredth less than a given number. | 4B | 12 | 1-4, 8 |
| MA.4.NSO.2.7 | Explore the addition and subtraction of multi-digit numbers with decimals to the hundredths. | 4B | 13 | 1-9 |



| Standard | Standard Description | DM | Chapter | Lesson |
|------------------------------------|---|--------|--------------|---------------|
| | Fractions | | | |
| Develop an und relationship bet | derstanding of the relationship between dif tween fractions and decimals. | ferent | fractions ar | nd the |
| MA.4.FR.1.1 | Model and express a fraction, including mixed numbers and fractions greater than one, with the denominator 10 as an equivalent fraction with the denominator 100. Denominators include 2 and 5 in DM. | 4B | 12 | 3-4 |
| MA.4.FR.1.2 | Use decimal notation to represent fractions with denominators of 10 or 100, including mixed numbers and fractions greater than 1, and use fractional notation with denominators of 10 or 100 to represent decimals. Denominators include 2 and 5 DM. | 4B | 12 | 1-4 |
| MA.4.FR.1.3 | Identify and generate equivalent fractions, including fractions greater than one. Describe how the numerator and denominator are affected when the equivalent fraction is created. Denominators are not limited to 2, 3, 4, 5, 6, 8, 10, 12, 16, and 100 in DM. | 4A | 6 | 1, 3, 5, 6 |
| MA.4.FR.1.4 | Plot, order and compare fractions, including mixed numbers and fractions greater than one, with different numerators and different denominators. | 4A | 6 | 2 |



| Standard | Standard Description | DM | Chapter | Lesson | | |
|---|---|-------|---------|--------|--|--|
| Build a foundation Fractions in DM and 100. | Build a foundation of addition, subtraction and multiplication operations with fractions. Fractions in DM 4 are not limited to those with denominators of 2, 3, 4, 5, 6, 8, 10, 12, and 100. | | | | | |
| MA.4.FR.2.1 | Decompose a fraction, including mixed | 3B | 10 | 7-8 | | |
| | numbers and fractions greater than one, into a sum of fractions with the same denominator in multiple ways. Demonstrate each decomposition with objects, drawings and equations. | 4A | 7 | 1 | | |
| MA.4.FR.2.2 | Add and subtract fractions with like denominators, including mixed | 3B | 10 | 7-8 | | |
| | numbers and fractions greater than one, with procedural reliability. DM 4 includes fractions with related denominators. | 4A | 7 | 1 | | |
| MA.4.FR.2.3 | Explore the addition of a fraction with denominator of 10 to a fraction with denominator of 100 using equivalent fractions. | 4B | 12 | 3, 4 | | |
| MA.4.FR.2.4 | Extend previous understanding of multiplication to explore the multiplication of a fraction by a whole number or a whole number by a fraction. | 4A | 8 | 1-9 | | |
| Solve problems | involving the perimeter and area of rectan | gles. | | | | |
| MA.4.GR.2.1 | Solve perimeter and area mathematical and real-world problems, including problems with unknown sides, for rectangles with whole-number side lengths. | 4B | 11 | 1-6 | | |
| MA.4.GR.2.2 | Solve problems involving rectangles with the same perimeter and different areas or with the same area and different perimeters. | 4B | 11 | 4-6 | | |



| Standard | Standard Description | DM | Chapter | Lesson | | |
|-------------------------------|--|--------|-----------|-----------|--|--|
| Data Analysis and Probability | | | | | | |
| Collect, represe set. | nt and interpret data and find the mode, m | nedian | and range | of a data | | |
| MA.4.DP.1.1 | Collect and represent numerical data, | 4B | 9 | 1-4 | | |
| | including fractional values, using tables, stem-and-leaf plots or line plots. Stem and leaf plots are not covered until DM 6. | 6B | 13 | 2 | | |
| MA.4.DP.1.2 | Determine the mode, median or range to interpret numerical data including fractional values, represented with tables, stem-and-leaf plots or line plots. Mode and median are not covered until DM 6. Mean is covered in DM 5. | 6B | 13 | 1-3 | | |
| MA.4.DP.1.3 | Solve real-world problems involving numerical data. | 4B | 9 | 1-4 | | |



| Standard | Standard Description | DM | Chapter | Lesson |
|--------------------------------|---|--------|-----------|--------|
| | Number Sense and Operatio | ons | | |
| Understand the thousandths pla | place value of multi-digit numbers with ace. | decima | ls to the | |
| MA.5.NSO.1.1 | Express how the value of a digit in a multi-digit number with decimals to the thousandths changes if the digit moves one or more places to the left or right. | 5B | 9 | 6, 7 |
| MA.5.NSO.1.2 | Read and write multi-digit numbers with decimals to the thousandths using standard form, word form and expanded form. | 5B | 9 | 1, 2 |
| MA.5.NSO.1.3 | Compose and decompose multi-digit numbers with decimals to the thousandths in multiple ways using the values of the digits in each place. Demonstrate the compositions or decompositions using objects, drawings and expressions or equations. | 5B | 9 | 1 |
| MA.5.NSO.1.4 | Plot, order and compare multi-digit numbers with decimals up to the thousandths | 5B | 9 | 3 |
| MA.5.NSO.1.5 | Round multi-digit numbers with | 4B | 13 | 9 |
| | decimals to the thousandths to the nearest hundredth, tenth or whole number. Students round to the nearest tenth or whole number in DM 4. | 5B | 9 | 4 |



| Standard | Standard Description | DM | Chapter | Lesson |
|-------------------|---|----|---------|---------|
| Add, subtract, r | nultiply and divide multi-digit numbers. | | , | • |
| MA.5.NSO.2.1 | Multiply multi-digit whole numbers | 4A | 4 | 1-8 |
| | including using a standard algorithm with procedural fluency | 5A | 3 | 1, 2, 3 |
| MA.5.NSO.2.2 | Divide multi-digit whole numbers, up | 4A | 5 | 1-7 |
| | to five digits by two digits, including using a standard algorithm with procedural fluency. Represent remainders as fractions. | 5A | 3 | 4-9 |
| MA.5.NSO.2.3 | Add and subtract multi-digit numbers | 4B | 13 | 1-7 |
| | with decimals to the thousandths, including using a standard algorithm with procedural fluency. | 5B | 10 | 1 |
| MA.5.NSO.2.4 | Explore the multiplication and | 4B | 14 | 1-9 |
| | division of multi-digit numbers with decimals to the hundredths using estimation, rounding and place value. | 5B | 10 | 3-10 |
| MA.5.NSO.2.5 | Multiply and divide a multi-digit number with decimals to the tenths by one tenth and one-hundredth with procedural reliability. | 5B | 10 | 3 |
| | Fractions | | | |
| Interpret a fract | ion as an answer to a division problem. | | • | |
| MA.5.FR.1.1 | Given a mathematical or real-world | 4A | 6 | 7 |
| | problem, represent the division of two whole numbers as a fraction. | 5A | 4 | 1 |
| Perform operat | ions with fractions. | 1 | 1 | |
| MA.5.FR.2.1 | Add and subtract fractions with unlike | 4A | 7 | 2-7 |
| | denominators, including mixed numbers and fractions greater than 1, with procedural reliability. | 5A | 4 | 2-9 |
| MA.5.FR.2.2 | Extend previous understanding of multiplication to multiply a fraction by a fraction, including mixed numbers and fractions greater than 1, with procedural reliability | 5A | 5 | 2-9 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|---------------------|---|---------|--------------|---------|--|
| MA.5.FR.2.3 | When multiplying a given number by a fraction less than 1 or a fraction greater than 1, predict and explain the relative size of the product to the given number without calculating. | 5A | 5 | 2-9 | |
| MA.5.FR.2.4 | Extend previous understanding of division to explore the division of a unit fraction by a whole number and a whole number by a unit fraction. | 5A | 6 | 1, 4 | |
| Algebraic Reasoning | | | | | |
| Solve problems | involving the four operations with whole | e numbe | ers and frac | ctions. | |
| MA.5.AR.1.1 | Solve multi-step real-world problems | 5A | 2 | 5-7 | |
| | involving any combination of the four operations with whole numbers, including problems in which remainders must be interpreted within the context. | | 3 | 2-9 | |
| MA.5.AR.1.2 | Solve real-world problems involving | 5A | 4 | 2-9 | |
| | the addition, subtraction or multiplication of fractions, including mixed numbers and fractions greater than 1. | | 5 | 1–11 | |
| MA.5.AR.1.3 | Solve real-world problems involving division of a unit fraction by a whole number and a whole number by a unit fraction. | 5A | 6 | 1, 4 | |

| Standard | Standard Description | DM | Chapter | Lesson |
|-----------------|---|----------|------------|------------|
| Demonstrate ar | understanding of equality, the order of | operati | ons and ec | quivalent |
| numerical expre | essions. | - | | - |
| MA.5.AR.2.1 | Translate written real-world and | 5A | 1 | 3, 4, 5 |
| | mathematical descriptions into | | 2 | 1-7 |
| | numerical expressions and numerical | | 3 | 1-9 |
| | expressions into written mathematical | | 4 | 1-9 |
| | descriptions | | 5 | 1-11 |
| | Nearly all lessons in DM include world | | 6 | 1-7 |
| | problems. | | 7 | 1-7 |
| | | | 8 | 7,8 |
| | | 5B | 9 | 6, 7, 10 |
| | | | 10 | 1-10 |
| | | | 12 | 1, 2, 3, 5 |
| | | | 13 | 1-6 |
| | | | 14 | 1-5 |
| | | | 15 | 1-8 |
| MA.5.AR.2.2 | Evaluate multi-step numerical | 5B | 2 | 1-7 |
| | expressions using order of operations | | | |
| MA.5.AR.2.3 | Determine and explain whether an | | | |
| | equation involving any of the four | | | |
| | operations is true or false. | | | |
| | This is not explicitly covered in DM, | | | |
| | though students are expected to | | | |
| | examine errors made during class | | | |
| | Given a mathematical or real world | 5.0 | 27 | |
| MA.J.AN.2.4 | context write an equation involving | JA 5D | 10 | |
| | any of the four operations to | 50 | 13.17 | all |
| | determine the unknown whole | | 15,14, | |
| | number with the unknown in any | | 10 | |
| | position. | | | |
| Analyze pattern | s and relationships between inputs and | outputs | • | 1 |
| MA.5.AR.3.1 | Given a numerical pattern, identify | 5B | 12 | 5 |
| | and write a rule that can describe the | | | |
| | pattern as an expression. | | | |
| MA.5.AR.3.2 | Given a rule for a numerical pattern, | 5B | 12 | 5 |
| | use a two-column table to record the | | | |
| | inputs and outputs | | | |



| Standard | Standard Description | DM | Chapter | Lesson |
|---------------------------------|---|---------|--------------|---------------|
| | Measurement | | | |
| Convert measur | ement units to solve multi-step problem | s. | | |
| MA.5.M.1.1 | Solve multi-step real-world problems | 4B | 10 | 1-9 |
| | that involve converting measurement units to equivalent measurements within a single system of measurement. | 5A | 7 | 1, 2, 3, 6 |
| Solve problems | involving money. | | | |
| MA.5.M.2.1 | Solve multi-step real-world problems involving money using decimal | ЗB | 15 | 1-6 |
| | notation. | 4B | 13 | 8, 9 |
| | | | 14 | 4, 7, 9 |
| | | 5B | 10 | 5, 9 |
| | Geometric Reasoning | | | |
| Classify two-dim attributes. | nensional figures and three-dimensional | figures | based on c | lefining |
| MA.5.GR.1.1 | Classify triangles or quadrilaterals into | 4B | 16 | 4, 5 |
| | different categories based on shared defining attributes. Explain why a triangle or quadrilateral would or would not belong to a category. | 5B | 11 | 6 |
| MA.5.GR.1.2 | Identify and classify three- dimensional figures into categories based on their defining attributes. Figures are limited to right pyramids, right prisms, right circular cylinders, right circular cones and spheres. Different types of pyramids and prisms are not covered until DM 6. | 6B | 12 | 1-2 |
| Find the perime | ter and area of rectangles with fractional | or dec | imal side le | ngths. |
| MA.5.GR.2.1 | Find the perimeter and area of a rectangle with fractional or decimal side lengths using visual models and formulas | 5A | 7 | 2 |



| Standard | Standard Description | DM | Chapter | Lesson |
|-----------------|--|---------|---------|--------|
| MA.5.GR.3.1 | Explore volume as an attribute of three-dimensional figures by packing them with unit cubes without gaps. Find the volume of a right rectangular prism with whole-number side lengths by counting unit cubes. | 5A | 8 | 1 |
| Solve problems | involving the volume of right rectangula | r prism | S. | |
| MA.5.GR.3.2 | Find the volume of a right rectangular prism with whole-number side lengths using a visual model and a formula | 5A | 8 | 2 |
| MA.5.GR.3.3 | Solve real-world problems involving the volume of right rectangular prisms, including problems with an unknown edge length, with whole-number edge lengths using a visual model or a formula. Write an equation with a variable for the unknown to represent the problem. | 5A | 8 | 3-5 |
| Plot points and | represent problems on the coordinate p | lane. | | |
| MA.5.GR.4.1 | Identify the origin and axes in the coordinate system. Plot and label ordered pairs in the first quadrant of the coordinate plane. | 5B | 12 | 4 |
| MA.5.GR.4.2 | Represent mathematical and real- world problems by plotting points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation. | 5B | 12 | 4 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|---------------------------------|--|-------|-----------|----------|--|
| Data Analysis and Probability | | | | | |
| Collect, represe a data set. | ent and interpret data and find the mean, | mode, | median or | range of | |
| MA.5.DP.1.1 | Collect and represent numerical data, including fractional and decimal values, using tables, line graphs or line plots. | 5B | 12 | 1-6 | |
| MA.5.DP.1.2 | Interpret numerical data, with whole- number values, represented with tables or line plots by determining the mean, mode, median or range. Mode and median are covered in DM 6. | 5B | 12 | 1, 2 | |

| Standard | Standard Description | DM | Chapter | Lesson |
|------------------------------------|--|--------|------------|------------|
| | Number Sense and Operation | าร | | |
| Extend knowled of absolute valu | lge of numbers to negative numbers and ie. | develo | op an unde | erstanding |
| MA.6.NSO.1.1 | Extend previous understanding of | 5B | 9 | 5 |
| | numbers to define rational numbers. | | 15 | 4 |
| | Plot, order and compare rational | 6A | 4 | 2 |
| | Students order lists of numbers that include fractions and decimals in DM 4 and 5. They also plot percentages and fractions in DM 5. In DM 6, they plot, order, and compare positive and negative whole numbers and fractions together, not only in the same form. | | 7 | 1 |
| MA.6.NSO.1.2 | Given a mathematical or real-world context, represent quantities that have opposite direction using rational numbers. Compare them on a number line and explain the meaning of zero within its context. | 6A | 4 | 1 |
| MA.6.NSO.1.3 | Given a mathematical or real-world context, interpret the absolute value of a number as the distance from zero on a number line. Find the absolute value of rational numbers. | 6A | 4 | 2 |
| MA.6.NSO.1.4 | Solve mathematical and real-world problems involving absolute value, including the comparison of absolute value. | 6A | 4 | 2 |



| Standard | Standard Description | DM | Chapter | Lesson |
|------------------|--|-----------------|---------|--------|
| Add, subtract, r | nultiply and divide positive rational numb | bers. | | |
| MA.6.NSO.2.1 | Multiply and divide positive multi-digit numbers with decimals to the thousandths, including using a standard algorithm with procedural fluency | 6A | 3 | 2, 3 |
| MA.6.NSO.2.2 | Extend previous understanding of multiplication and division to compute products and quotients of positive fractions by positive fractions, including mixed numbers, with procedural fluency. | 6A | 2 | 1, 2 |
| MA.6.NSO.2.3 | Solve multi-step real-world problems | 6A | 2 | 1, 2 |
| | involving any of the four operations with positive multi-digit decimals or positive fractions, including mixed numbers. | | 3 | 2, 3 |
| Apply propertie | es of operations to rewrite numbers in equ | uivalent forms. | | |
| MA.6.NSO.3.1 | Given a mathematical or real-world context, find the greatest common factor and least common multiple of two whole numbers. | 6A | 1 | 2 |
| MA.6.NSO.3.2 | Rewrite the sum of two composite whole numbers having a common factor, as a common factor multiplied by the sum of two whole numbers. | 6A | 1 | 3 |
| MA.6.NSO.3.3 | Evaluate positive rational numbers and integers with natural number exponents. Exponents of negative integers is not covered in DM 6, since multiplication of negative integers is not covered until DM 7. | 6A | 1 | 1 |



| Standard | Standard Description | DM | Chapter | Lesson | |
|--|---|----------|-------------|-----------------|--|
| MA.6.NSO.3.4 | Express composite whole numbers as a product of prime factors with natural number exponents. | 7A | 1 | 2 | |
| MA.6.NSO.3.5 | Rewrite positive rational numbers in different but equivalent forms | 5B | 10 15 | 6, 7 2, 3, 4 | |
| | including fractions, terminating decimals and percentages. | 6A | 3 | 1 | |
| Extend understa | anding of operations with integers. | <u> </u> | ' | | |
| MA.6.NSO.4.1 | Apply and extend previous understandings of operations with whole numbers to add and subtract integers with procedural fluency. | 7A | 2 | 2, 3 | |
| MA.6.NSO.4.2 | Apply and extend previous understandings of operations with whole numbers to multiply and divide integers with procedural fluency. | 7A | 2 | 4 | |
| | Algebraic Reasoning | | | | |
| Apply previous | understanding of arithmetic expressions | to alge | ebraic xpre | ssions. | |
| MA.6.AR.1.1 | Given a mathematical or real-world context, translate written descriptions into algebraic expressions and translate algebraic expressions into written descriptions. | 6B | 8 | 1 | |
| MA.6.AR.1.2 | Translate a real-world written description into an algebraic inequality in the form of $x > a$, $x < a$, $x \ge a$ or $x \le a$. Represent the inequality on a number line. | 6B | 9 | 2 | |
| MA.6.AR.1.3 | Evaluate algebraic expressions using substitution and order of operations | 6B | 8 | 1 | |
| MA.6.AR.1.4 | Apply the properties of operations to generate equivalent algebraic expressions with integer coefficients. | 6B | 8 | 2 | |
| Develop an understanding for solving equations and inequalities. Write and solve one-step equations in one variable. | | | | | |



| Standard | Standard Description | DM | Chapter | Lesson |
|---|---|----|---------|--------|
| MA.6.AR.2.1 | Given an equation or inequality and a specified set of integer values, determine which values make the equation or inequality true or false. | 6B | 9 | 1 |
| MA.6.AR.2.2 | Write and solve one-step equations in one variable within a mathematical or real-world context using addition and subtraction, where all terms and solutions are integers. | 6B | 9 | 1 |
| MA.6.AR.2.3 | Write and solve one-step equations in one variable within a mathematical or real-world context using multiplication and division, where all terms and solutions are integers. | 6B | 9 | 1 |
| MA.6.AR.2.4 | Determine the unknown decimal or fraction in an equation involving any of the four operations, relating three numbers, with the unknown in any position | 6B | 9 | 1 |
| Understand ratio and unit rate concepts and use them to solve problems. | | | | |
| MA.6.AR.3.1 | Given a real-world context, write and interpret ratios to show the relative sizes of two quantities using appropriate notation: a/b , a to b , or a : b where $b \neq 0$. | 5B | 13 | 1 |
| | | 6A | 5 | 1 |
| MA.6.AR.3.2 | Given a real-world context, determine a rate for a ratio of quantities with different units. Calculate and interpret the corresponding unit rate. | 5B | 14 | 1 |
| | | 6A | 6 | 2 |
| MA.6.AR.3.3 | Extend previous understanding of fractions and numerical patterns to generate or complete a two- or three- column table to display equivalent part-to-part ratios and part-to-part-to- whole ratios. | 6A | 5 | 1 |



| Standard | Standard Description | DM | Chapter | Lesson |
|---|--|----------|---------------|---------|
| MA.6.AR.3.4 | Apply ratio relationships to solve mathematical and real-world problems involving percentages using the relationship between two | 5B 6A | 15 7 | 1 |
| | quantities. | | | |
| MA.6.AR.3.5 | Solve mathematical and real-world problems involving ratios, rates and unit rates, including comparisons, mixtures, ratios of lengths and conversions within the same measurement system. | 5B | 13, 14, 15 | all |
| | | 6A | 5 | 1, 2 |
| | | | 6 | 1, 2, 3 |
| | | | 7 | 1, 2 |
| Geometric Reasoning | | | | |
| Apply previous understanding of the coordinate plane to solve problems. | | | | |
| MA.6.GR.1.1 | Extend previous understanding of the coordinate plane to plot rational number ordered pairs in all four quadrants and on both axes. Identify the <i>x</i> - or <i>y</i> -axis as the line of reflection when two ordered pairs have an opposite <i>x</i> - or <i>y</i> - coordinate. | 6B | 10 | 1 |
| MA.6.GR.1.2 | Find distances between ordered pairs, limited to the same <i>x</i> - coordinate or the same <i>y</i> -coordinate, represented on the coordinate plane. | 6B | 10 | 2 |
| MA.6.GR.1.3 | Solve mathematical and real-world problems by plotting points on a coordinate plane, including finding the perimeter or area of a rectangle. | 6B | 10 | 1, 2 |

| Standard | Standard Description | DM | Chapter | Lesson |
|---|--|----|---------|--------|
| Model and solve problems involving two-dimensional figures and three- dimensional figures. | | | | |
| MA.6.GR.2.1 | Derive a formula for the area of a | 5A | 7 | 4, 5 |
| | right triangle using a rectangle. Apply a formula to find the area of a triangle. DM includes all triangles, not just right triangles. | 6B | 11 | 2 |
| MA.6.GR.2.2 | Solve mathematical and real-world | 5A | 7 | 6,7 |
| | problems involving the area of quadrilaterals and composite figures by decomposing them into triangles or rectangles. | 6B | 11 | 2, 3 |
| MA.6.GR.2.3 | Solve mathematical and real-world problems involving the volume of right rectangular prisms with positive rational number edge lengths using a visual model and a formula. | 6B | 11 | 2 |
| MA.6.GR.2.4 | Given a mathematical or real-world context, find the surface area of right rectangular prisms and right rectangular pyramids using the figure's net. | 6B | 12 | 1, 2 |
| Data Analysis and Probability | | | | |
| Develop an understanding of statistics and determine measures of center and measures of variability. Summarize statistical distributions graphically and numerically. | | | | |
| MA.6.DP.1.1 | Recognize and formulate a statistical question that would generate numerical data | 6B | 13 | 1 |
| MA.6.DP.1.2 | Given a numerical data set within a real-world context, find and interpret mean, median, mode and range. | 6B | 13 | 1 |



| Standard | Standard Description | DM | Chapter | Lesson |
|-------------|---|----|---------|--------|
| MA.6.DP.1.3 | Given a box plot within a real-world context, determine the minimum, the lower quartile, the median, the upper quartile and the maximum. Use this summary of the data to describe the spread and distribution of the data. | 6B | 13 | 3 |
| MA.6.DP.1.4 | Given a histogram or line plot within a real-world context, qualitatively describe and interpret the spread and distribution of the data, including any symmetry, skewness, gaps, clusters, outliers and the range. | 6B | 13 | 2 |
| MA.6.DP.1.5 | Create box plots and histograms to represent sets of numerical data within real world contexts. | 6B | 13 | 2, 3 |
| MA.6.DP.1.6 | Given a real-world scenario, determine and describe how changes in data values impact measures of center and variation. | 6B | 13 | 1, 3 |