Oregon Essentialized Assessment Framework (EAF)

Mathematics

About This Document

This document presents Oregon's updated Essentialized Assessment Framework (EAF), for Oregon's Alternate Assessment, based on the Alternate Academic Achievement Standards (AA-AAAS) for Mathematics, organized by grade level and aligned with the most current state academic content standards. The AA-AAAS are essentialized versions of Oregon's general education standards, systematically reduced in depth, breadth, and complexity to ensure meaningful access for students with the most significant cognitive disabilities, as required by Every Student Succeeds Act (ESSA, 2015). For Mathematics, the Key Scope used to guide item writing and L/M/H parameters is also provided.

Each page is structured to serve as a clear, practical tool for classroom planning and instructional decision-making and includes the following:

- Source Standard: The original or updated Oregon grade-level academic content standard that provides the academic foundation for each AA-AAAS.
- Alternate Academic Achievement Standard (AA-AAAS): A carefully essentialized version of the source standard, developed using Oregon's validated SCORE process (Select, COde, Reduce, Essentialize) to maintain the core intent while removing barriers to access.
- Low, Medium, and High (L, M, H) Parameters: Defined ranges of complexity that guide how each AA-AAAS can be taught and assessed at levels appropriate to individual student abilities and needs.

Approach to Non-Essentialized Standards

In linkage with established practice for alternate academic achievement standards, not all general education source standards are essentialized for inclusion in this document. The essentialization process focuses on selecting and adapting standards that can be clearly linked to observable skills and measured reliably within the structure of Oregon's Extended Assessment. A list of source

standard codes that were reviewed but not essentialized is included on the last page of each grade level. Educators may refer to Oregon's published content standards for the full description and context of these codes.

How to Use This Document

This resource is designed to be an instructional planning companion for teachers, specialists, and support staff delivering meaningful academic instruction aligned with the Oregon Extended Assessment (ORExt). Unlike previous versions distributed in Excel format, this PDF is streamlined and organized for ease of use, based on direct feedback from Oregon educators.

Teachers are encouraged to use the Source Standards for context, the AA-AAAS for instructional targets, and the L/M/H parameters to scaffold lessons and adjust complexity, ensuring each student has an appropriately challenging and accessible pathway toward grade-level expectations.

Contact

For additional support in implementing the AA-AAAS or for questions about alignment and instruction, please contact the Oregon Department of Education or visit ODE's Alternate Assessment webpage.

Mathematics Key Scope by Grade Level

KEY	Abbreviation	Definition
	A	Addition
	S	Subtraction
	M	Multiplication
	D	Division
Grade	**Content Area**	**Scope**
3	Numbers	Whole numbers: 1 to 20
3	Fractions	1/2
3	Operations	Addition and Subtraction (within 1-10); Multiplication and Division (within 1-5)
3	Shapes	Triangle, Circle, Square
3	Graphs	Picture Graphs, Pie Charts
3	Digital Time	Hour
3	Length	Inches, Feet
3	Area	Unit Squares, Square Inches, Square Feet
3	Volume	Same, More, Less
3	Temperature	Degrees F
Grade	**Content Area**	**Scope**
4	Numbers	Whole numbers: 1 to 40
4	Fractions	1/2, 1/4
4	Operations	Addition and Subtraction (within 1-20); Multiplication and Division (within 1-10
4	Shapes	Triangle, Circle, Square, Rectangle, Oval
4	Graphs	Picture Graphs, Pie Charts, Bar Graphs
4	Digital Time	Hour, Half Hour, Quarter Hour
4	Length	Inches, Feet, 1/2 inches
4	Area	Unit Squares, Square Inches, Square Feet, Square 1/2 Inches
4	Weight	Pounds, Ounces
4	Volume	Cups, Pints
4	Temperature	Degrees F

Mathematics Key Scope by Grade Level

Grade	Content Area	Scope
5	Numbers	Whole numbers 0 to 60
5	Fractions/Decimals	1/2, 1/3, 1/4, 0.5
5	Operations	Addition and Subtraction (within 0-30); Multiplication and Division (within 0-20)
5	Shapes	Triangle(s), Circle, Square, Rectangle, Oval
5	Graphs	Picture Graphs, Pie Charts, Bar Graphs, Line Graphs, Histograms
5	Digital Time	Hour, Half Hour, Quarter Hour, 5-Minute, 1-Minute
5	Length	Inches, Feet, 1/2 inches, Yards
5	Area	Unit Squares, Square Inches, Square Feet, Square 1/2 Inches, Square Yards
5	Weight	Pounds, Ounces, Kilograms, Grams
5	Volume	Cups, Pints, Quarts, Unit Cubes, Cubic Inches
5	Temperature	Degrees F
Grade	**Content Area**	**Scope**
6	Numbers	Whole numbers: 0 to 80; Negative integers: -1 to -5
6	Fractions/Decimals	1/2, 1/3, 1/4, 1/8, 0.5, 0.25
6	Operations	Operations: Addition and Subtraction (within 0-40, -1 to -5); Multiplication and Division (within 0-30)
6	Shapes	Triangle(s), Circle, Square, Rectangle, Oval, Rhombus, Pentagon
6	Graphs	Picture Graphs, Pie Charts, Bar Graphs, Line Graphs
6	Analog Time	Hour, Half Hour
6	Length	Inches, Feet, 1/2 inches, Yards, 1/4 inches, Meters, Miles
6	Area	Unit Squares, Square Inches, Square Feet, Square 1/2 Inches, Square Yards, Square Meters, Square Miles
6	Weight	Pounds, Ounces, Kilograms, Grams
6	Volume	Cups, Pints, Quarts, Unit Cubes, Cubic Inches, Cubic Feet, Gallons
6	Temperature	Degrees F

Mathematics Key Scope by Grade Level

Grade	Content Area	Scope
7	Fractions/Decimals	1/2, 1/3, 1/4, 1/8, 0.75, 0.5, 0.25
7	Operations	Addition and Subtraction (within 0-50, -1 to -10); Multiplication and Division (within 0-40)
7	Shapes	Triangle(s), Circle, Square, Rectangle, Oval, Rhombus, Pentagon, Hexagon
7	Graphs	Picture Graphs, Pie Charts, Bar Graphs, Line Graphs
7	Analog Time	Hour, Half Hour, Quarter Hour
7	Length	Inches, Feet, 1/2 inches, 1/4 inches, Centimeters, Miles, Meters, 1/8 inches
7	Area	Unit Squares, Square Inches, Square Feet, Square 1/2 Inches, Square Yards, Square Meters, Square Miles, Square Centimeters
7	Weight	Pounds, Ounces, Kilograms, Grams, Milligrams
7	Volume	Cups, Pints, Quarts,Cubic Inches, Cubic Feet, Gallons, Liters, Cubic Yards
7	Temperature	Degrees F
Grade	**Content Area**	**Scope**
8	Numbers	Whole numbers: 0 to 200; Negative integers: -1 to -15
8	Fractions/Decimals	1/2, 1/3, 1/4, 1/8, 0.75, 0.5, 0.40, 0.30, 0.25, 0.20, 0.10, 5/10, 4/10, 3/10, 2/10, 1/10; Mixed Numbers with 1/2 & 1/4
8	Operations	Addition and Subtraction (within 0-100, -1 to -20); Multiplication and Division (within 0-50)
8	Shapes	Triangle(s), Circle, Square, Rectangle, Oval, Rhombus, Pentagon, Hexagon, Octagon
8	Graphs	Picture Graphs, Pie Charts, Bar Graphs, Line Graphs, Histograms
8	Analog Time	Hour, Half Hour, Quarter Hour, 5-Minute
8	Length	Inches, Feet, 1/2 inches, 1/4 inches, Centimeters, Miles, Meters, 1/8 inches, 1/16 inches
8	Area	Unit Squares, Square Inches, Square Feet, Square 1/2 Inches, Square Yards, Square Meters, Square Miles, Square Centimeters
8	Weight	Pounds, Ounces, Kilograms, Grams, Milligrams
8	Volume	Cups, Pints, Quarts, Cubic Inches, Cubic Feet, Gallons, Liters, Cubic Yards, Milliliters,
8	Temperature	Degrees F, Degrees C

Mathematics Key Scope by Grade Level

Grade	Content Area	Scope
11	Numbers	Whole numbers: 0 to 250; Negative integers: -1 to -20
11	Fractions/Decimals	1/2, 1/3, 1/4, 1/8, 0.75, 0.5, 0.40, 0.30, 0.25, 0.20, 0.10, 9/10, 8/10, 7/10, 6/10, 5/10, 4/10, 3/10, 2/10, 1/10; Mixed Numbers with 3/4, 1/2, 1/3, 1/4
11	Operations	Addition and Subtraction (within 0-200, -1 to -25); Multiplication and Division (within 0-100)
11	Shapes	Triangle(s), Circle, Square, Rectangle, Oval, Rhombus, Pentagon, Hexagon, Octagon
11	Graphs	Picture Graphs, Pie Charts, Bar Graphs, Line Graphs, Histograms
11	Analog Time	Hour, Half Hour, Quarter Hour, 5-Minute, 1-Minute
11	Length	Inches, Feet, 1/2 inches, 1/4 inches, Centimeters, Meters, Miles, 1/8 inches, 1/16 inches, Kilometers
11	Area	Unit Squares, Square Inches, Square Feet, Square 1/2 Inches, Square Yards, Square Meters, Square Miles, Square Centimeters, Square Kilometers
11	Weight	Pounds, Ounces, Kilograms, Grams, Milligrams, Tons
11	Volume	Cups, Pints, Quarts, Cubic Inches, Cubic Feet, Gallons, Liters, Cubic Yards, Milliliters, Cubic Centimeters
11	Temperature	Degrees F , Degrees C

Math Grade 3

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M03GEO1.1	3.GM.A.1	Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category	Use attributes of triangles, squares, and circles to classify shapes.	**L:** Identify triangles (all shapes in answer choices same-size). **M:** Identify squares (shapes in answer choices of various sizes). **H:** Identify circles (shapes in answer choices of various sizes).
M03GEO1.2	3.GM.A.2	Partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole	Use unit squares to determine 1/2 or the whole.	**L:** Use unit squares to identify whole areas shaded up to 2X2. **M:** Use unit squares to identify whole or 1/2 areas shaded up to 3X3 (with shading done only one side). **H:** Use unit squares to identify whole areas shaded up to 4X4 or 1/2 of any square figure up to 4X4 (with shading done on diagonals).

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M03MED1.1	3.GM.B.3	Tell, write, and measure time to the nearest minute. Solve problems in authentic contexts that involve addition and subtraction of time intervals in minutes.	Tell time to the nearest hour.	**L:** Items involving 3:00, 6:00, 9:00. **M:** Items involving 1:00, 2:00, 4:00, 5:00, 7:00, 8:00, 10:00, 11:00. **H:** Items involving Noon and/or AM/PM.
M03MED1.2	3.GM.B.4	Measure, estimate and solve problems in authentic contexts that involve liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).	Compare amounts/sizes using terms: same, more, less, larger, smaller	**L:** Compare amounts/sizes that are the same. **M:** Compare amounts/sizes that are 3 or more units apart. **H:** Compare amounts/sizes that are no more than 2 units apart.
M03MED2.3	3.DR.B.2	Analyze measurement data with a scaled picture graph or a scaled bar graph to represent a data set with several categories. Interpret information presented to answer investigative questions.	Compare amounts on picture graphs using terms: same, more, less.	**L:** Compare picture/pie graphs that are the same. **M:** Compare picture/pie graphs that are very far apart. **H:** Compare picture/pie graphs that are close together.

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M03MED2.4	3.MD.B.4	Generate questions to investigate situations within the classroom, school, or community. Collect or consider measurement data that can naturally answer questions by using information presented in a scaled picture and/or bar graph.	Compare measurements in inches using terms same, more, or less.	**L:** Compare objects that are the same length. **M:** Compare objects that are 3-5 inches apart. **H:** Compare objects that are within one inch in length.
M03MED3.5A	3.GM.C.5, 3.MD.C.6, 3.MD.C.7,	Recognize area as an attribute of plane figures and understand concepts of area measurement presented in authentic contexts by tiling and counting unit squares.	Use unit squares to measure areas in square inches.	**L:** Identify areas using unit square inches up to 4 square inches. **M:** Identify areas using unit squares up to 9 square units. **H:** Identify areas using unit squares up to 16 square units.

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M03MED3.7B	3.GM.C.7	Relate area to multiplication and addition. Use relevant representations to solve problems in authentic contexts.	Use multiplication and addition of unit squares to determine the area of a shape in authentic contexts.	**L:** Determine the area of a shape by multiplying side lengths up to 4 square inches or by adding unit squares up to 5. **M:** Determine the area of a shape by multiplying side lengths up to 9 square inches or by adding unit squares up to 15. **H:** Determine the area of a shape by multiplying side lengths up to 16 square inches or by adding unit squares up to 20.
M03MED4.8	3.GM.D.8	Solve problems involving authentic contexts for perimeters of polygons.	Determine perimeter of equilateral triangles and squares.	**L:** Add perimeter of equilateral triangles and squares up to 6. **M:** Add perimeter of triangles and squares up to 12. **H:** Add perimeter of squares up to 20.
M03NBT1.2	3.NBT.A.2	Fluently add and subtract within 1000 using accurate, efficient, and flexible strategies and algorithms based on place value and properties of operations.	Add and subtract whole numbers up to 20.	**L:** Add numbers 1-10. **M:** Add numbers 11-20 and subtract numbers 1-10. **H:** Subtract numbers 16-20.

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M03NBT1.3	3.NBT.A.3	Find the product of one-digit whole numbers by multiples of 10 in the range 10-90, such as 9 x 80. Students use a range of strategies and algorithms based on place value and properties of operations.	Multiply numbers 1-5.	**L:** Multiply 1 by 1-2. **M:** Multiply 2 by 2-4. **H:** Multiply 3-5 by 3-5.
M03NOF1.1	3.NF.A.1	Understand the concept of a unit fraction and explain how multiple copies of a unit fraction form a non-unit fraction.	Identify halves of wholes.	**L:** Half of 2, 4, 6. **M:** Half of 10, 12, 14. **H:** Half of 16, 18, 20.
M03NOF1.2a	3.NF.A.2, 3.NF.A.3	Understand a fraction as a number on the number line. Represent fractions on a number line diagram.	Represent 1/2 on a number line.	**L:** Half between 1-2. **M:** Half between 3-7. **H:** Half between 8-10.
M03NOF1.3b	3.NF.A.2, 3.NF.A.3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	Match equivalent fractions (1/2).	**L:** Numbers 2/4, 3/6, 4/8. **M**: Numbers 5/10, 6/12, 7/14. **H:** Numbers 8/16, 9/18, 10/20.
M03OAT1.1	3.OA.A.1	Represent and interpret multiplication of two factors as repeated addition of equal groups.	Identify a product of whole number groups 1-5.	**L:** 1 through 5 multiplied by 1. **M:** 1 through 3 multiplied by 2 or 3. **H:** 3 and 4 multiplied by 4 or 5.

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M03OAT1.2	3.OA.A.2	Represent and interpret whole-number quotients as dividing an amount into equal sized groups.	Perform division problems using grouping strategies (1-5).	**L:** Two groups of 2-3. **M:** Two groups of 4-5. **H:** Three groups of 2-5.
M03OAT1.3	3.OA.A.3	Use multiplication and division within 100 to solve problems in authentic contexts involving equal groups, arrays, and/or measurement quantities.	Solve word problems involving addition (numbers 1-20) and multiplication (numbers 1-5).	**L:** Add numbers 1-10. **M:** Add numbers 11-20. multiply numbers 1-2 by 2-4. **H:** Multiply numbers 3-5 by 3-5.
M03OAT1.4	3.OA.A.4	Determine the unknown number in a multiplication or division equation relating three whole numbers by applying the understanding of the inverse relationship of multiplication and division.	Students will identify and describe simple patterns (e.g., doubling, skipping numbers) and use them to solve problems involving proportional relationships in authentic contexts.	**L:** Identify the next number in a pattern that increases by 1 or 2. **M:** Identify a number that follows a doubling or skip-counting pattern (by 2s, 5s, or 10s). **H:** Use a simple number pattern (e.g., doubling or skip-counting) to solve a one-step word problem.
M03OAT2.5	3.OA.B.5	Apply properties of operations as strategies to multiply and divide.	Identify equivalent addition problems.	**L:** Numbers 1-5. **M:** Numbers 6-14. **H:** Numbers 15-20.

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M03OAT2.6	3.OA.B.6	Understand division as an unknown-factor in a multiplication problem.	Identify representations of one half in pictorial and numerical contexts; calculate 1/2 of numbers 1-20.	**L:** Pictorial representations of 1/2. **M:** Numerical representations of 1/2. **H:** Identify amounts that are half of 1-20.
M03OAT4.8	3.OA.D.8	Solve two-step problems in authentic contexts that use addition, subtraction, multiplication, and division in equations with a letter standing for the unknown quantity.	Solve one-step word problems using addition and subtraction.	**L:** Add numbers 1-10. **M:** Add numbers 1-10 and subtract numbers 1-5. **H:** Subtract numbers 6-10.
M03OAT4.9	3.OA.D.9	Identify and explain arithmetic patterns using properties of operations, including patterns in the addition table or multiplication table.	Perform basic counting operations, up to skip counting by 2s and 5s.	**L:** Count 1-10 objects. **M:** Count 11-20 objects. **H:** Skip count by 2s and 5s to 20.

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M03OAT7	3.OA.C.7	Fluently multiply and divide within 100 using accurate, efficient, and flexible strategies and algorithms based on place value and properties of operations.	Multiply and divide within 1-5 using strategies based on place value and properties of operations.	**L:** Identify the product of two whole numbers from 1-3. **M:** Identify the quotient of a whole number (up to 10) divided by 2 or 5. **H:** Solve a one-step story problem involving multiplication or division within 1–5.

Standards not Essentialized:
Please refer to Oregon's published content standards for the full description and context of these codes.
3.NBT.A.1

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M04GEO1.1	4.GM.A.1	Explore, investigate, and draw points, lines, line segments, rays, angles, and perpendicular and parallel lines. Identify these in two-dimensional figures.	Identify points, line segments, and angles.	**L:** Identify point when given a point, line, and angle. **M:** Identify line segments. **H:** Identify angles.
M04GEO1.2	4.GM.A.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.	Identify triangles, circles, squares, and rectangles.	**L:** Identify triangles. **M:** Identify squares and circles. **H:** Identify rectangles.
M04GEO1.3	4.GM.A.3	Recognize and draw a line of symmetry for a two dimensional figure.	Identify lines that divide objects/shapes into equal halves.	**L:** Identify line that divides objects in half. **M:** Identify line that divides squares or circles in half. **H:** Identify line that divides rectangles in half.
M04MED1.1	4.MD.A.1	Know relative sizes of measurement units and express measurements in a larger unit in terms of a smaller unit.	Make comparisons of time, weight, and length units using graphic displays.	**L:** Compare two measures that vary by 5 or more units. **M:** Compare two measures that vary by 3-4 units. **H:** Compare two measures that vary by 1-2 units.

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M04MED1.2	4.GM.B.5	Apply knowledge of the four operations and relative size of measurement units to solve problems in authentic contexts that include familiar fractions or decimals.	Represent time, weight, and length measurements using diagrams with a measurement scale.	**L:** Perform measures of items measuring 1-5 units. **M:** Perform measures of items measuring 6-10 units. **H:** Perform measures of items measuring 11-20 units.
M04MED1.3	4.GM.B.6	Apply the area and perimeter formulas for rectangles in authentic contexts and mathematical problems.	Use unit square feet to determine areas up to 20 square feet.	**L:** Use unit square feet to determine areas up to 5 square feet. **M:** Use unit squares to determine areas from 6-10 square feet. **H:** Use unit squares to determine areas up to 20 square feet.
M04MED2.4	4.DR.B.2	Analyze line plots to display a distribution of numerical measurement data, which include displays of data sets of fractional measurements with the same denominator. Interpret information presented to answer investigative questions.	Identify how many times whole numbers or simple fraction (1/2, 1/4, 1/8) appears on a line plot.	**L:** Count how many times 1/2 appears on a line plot. **M:** Count and compare how many times 1/2 and 1/4 appear. **H:** Identify which fraction appears most often among 1/2, 1/4, 1/8.

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M04MED3.5a	4.GM.C.7	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint. Understand and apply concepts of angle measurement.	Match identical angles (45, 60, 90).	**L:** Match labeled angles that are the same (90). **M:** Match labeled angles that are the same (45, 60, 90). **H:** Match equivalent angles (45, 60, and 90).
M04NBT1.1	4.NBT.A.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.	Use place value to compare numbers that are multiples of 10 and ones versus tens place.	**L:** Identify multiples of 10: 10, 20, 30, 40. **M:** Identify the relation between the place values for the double-digit numbers 11, 22, 33, 44. **H:** Identify which number is in the tens' place and ones' place.
M04NBT1.2	4.NBT.A.2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Use understandings of place value within these forms to compare two multi-digit numbers using >, =, and < symbols.	Recognize and compare whole numbers using digit values, base-ten representations, and in authentic contexts.	**L:** Identify which of two whole numbers (under 40) is greater by comparing digits. **M:** Match a number (under 60) to its base-ten numeral or expanded form. **H:** Use number comparison (greater than, less than, equal to) to solve a simple word problem with numbers up to 60.

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M04NBT1.3	4.NBT.A.3	Use place value understanding to round multi-digit whole numbers to any place.	Identify whether numbers are closer to base ten numeral above or below the given number.	**L:** Numerals between 1 and 10. **M:** Numerals between 11 and 30. **H:** Numerals between 31 and 40.
M04NBT2.4	4.NBT.B.4	Fluently add and subtract multi-digit whole numbers using accurate, efficient, and flexible strategies and algorithms based on place value and properties of operations.	Add and subtract numbers up to 40.	**L:** Add numbers up to 20. **M:** Add numbers up to 40. subtract numbers up to 10. **H:** Subtract numbers between 11 and 40.
M04NBT2.5	4.NBT.B.5	Use representations and strategies to multiply a whole number of up to four digits by a one-digit number, and a two-digit number by a two-digit number using strategies based on place value and the properties of operations.	Multiply numbers up to 10; match area models to the correct number up to 40.	**L:** Match area models (1-10). **M:** Multiply numbers (1-5), match area models (11-30). **H:** Multiply numbers (6-10), match area models (31-40).

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M04NBT2.6	4.NBT.B.6	Use representations and strategies to find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.	Use area models to solve division problems up to 10; divide numbers up to 10.	**L:** Use area model to solve division problems up to 5. **M:** Use area models to solve division problems up to 10. **H:** Solve division problems up to 10.
M04NOF1.1	4.NF.A.1	Use visual fraction representations to recognize, generate, and explain relationships between equivalent fractions.	Divide numbers in 1/2 or 1/4 with numbers 1-10 using graphic supports.	**L:** Divide objects in 1/2 with numbers 1, 2 and 4. **M:** Divide objects in 1/2 with numbers 6, 8, and 10. **H:** Divide numbers in 1/4 with 1, 4, and 8.
M04NOF1.2	4.NF.A.2	Compare two fractions with different numerators and/or different denominators, record the results with the symbols >, =, or <, and justify the conclusions.	Make comparisons using <, =, and > using numerals up to 40 and 1/2 or 1/4.	**L:** Make comparisons between 1-10 using smaller, larger, or same. **M:** Compare numbers 20 to 30 using <, =, and >. **H:** Compare numbers 31-40 and 1/2 or 1/4 using < , =, and >.

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M04NOF2.3A	4.NF.B.3	Understand a fraction (a/b) as the sum (a) of fractions of the same denominator (1/b). Solve problems in authentic contexts involving addition and subtraction of fractions referring to the same whole and having like denominators.	Identify, compare, and add or subtract fractions with like denominators using objects, number lines, and word problems.	**L:** Match equivalent groups of 1-5 objects. Identify mixed numbers between 1-10 on a number line (½). Solve word problems involving addition and subtraction of whole numbers (1-10). **M:** Match equivalent groups of 6-10 objects. Identify mixed numbers between 11-20 on a number line (½). Solve word problems involving addition and subtraction of halves (2, 4, 6, 8, 10). **H:** Match equivalent groups of 11-20 objects. Identify mixed numbers between 21-40 on a number line (½ and ¼). Solve word problems involving addition and subtraction of quarters (4, 8, 12, 16, 20).

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M04NOF2.4A	4.NF.B.4	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Represent and solve problems in authentic contexts involving multiplication of a fraction by a whole number.	Use a number line to add wholes, halves, and quarters	**L:** Use a number line to add wholes (1-10). **M:** Use a number line to add wholes (11-20) and halves (1-10). **H:** Use a number line to add halves and quarters (11-20).
M04NOF3.6	4.NF.C.6	Use and interpret decimal notation for fractions with denominators 10 or 100.	Identify whole numbers (written 1.0, etc.) and match decimals .5 and .25 with 1/2, 1/4.	**L:** Identify whole numbers (1-20). **M:** Identify whole numbers (21-40). **H:** Match decimals with fractions (.5 with 1/2 and .25 with 1/4).
M04OAT1.1	4.OA.A.1	Interpret a multiplication equation as comparing quantities. Represent verbal statements of multiplicative comparisons as equations.	Identify equivalent multiplication equations.	**L:** Multiplication equations involving 1-3. **M:** Multiplication equations involving 4-7. **H:** Multiplication equations involving 8-10.

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OrExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M04OAT1.2	4.OA.A.2, 4.OA.A.3	Multiply or divide to solve problems in authentic contexts involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison.	Solve one-step word problems using addition or multiplication.	**L:** Word problem using addition (1-20) or multiplication with solutions (1-10). **M:** Word problem using multiplication with solutions (11-20). **H:** Word problem using multiplication with solutions (21-40).
M04OAT2.4	4.OA.B.4	Find all factor pairs for a whole number in the range 1-100. Determine whether a given whole number in the range of 1-100 is a multiple of a given one-digit number, and whether it is prime or composite	Determine whether a number between 1-40 is divisible by 2, 3, 5, or 10.	**L:** Identify numbers up to 10 that are divisible by 2. **M:** Identify numbers up to 30 that are divisible by 3. **H:** Identify numbers up to 40 that are divisible by 5 or 10.
M04OAT3.5	4.OA.C.5	Analyze a number, visual, or contextual pattern that follows a given rule.	Skip count by 2s, 3s, 5s, and 10s.	**L:** Recognize skip counting by 2s within 2-20. **M:** Skip count by 2s within 2-20. **H:** Skip count by 3s, 5s, and 10s within 2-40.

Math Grade 4

Standards not Essentialized:

Please refer to Oregon's published content standards for the full description and context of these codes.

4.GM.C.8	4.NF.C.5
4.GM.C.9	4.NF.C.7

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05GEO1.2	5.GM.A.2, 5.GM.A.1	Represent authentic contexts and mathematical problems by graphing points in the first quadrant of the coordinate plane. Interpret the meaning of the coordinate values based on the context of a given situation.	Identify points graphed in the first quadrant of the coordinate plane.	**L:** Identify value of Y when provided with X and verbal directions to X. **M:** Identify location of a point when provided a verbal direction to its location. **H:** Identify a point given its coordinates.
M05GEO2.4	5.GM.B.3, 5.GM.D.6	Classify two-dimensional figures within a hierarchy based on their geometrical properties, and explain the relationship across and within different categories of these figures.	Match a description with a two dimensional figure.	**L:** Match a description of triangle with a triangle figure. **M:** Match a description of a square/circle with a square/circle figure. **H:** Match a description of a rectangle with a rectangle figure.

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05MED1.1	5.GM.C.4	Convert between different-sized standard measurement units within a given measurement system. Use these conversions in solving multi-step problems in authentic contexts.	Convert inches into feet given a verbal and visual model.	**L:** Convert inches into feet using 1/2 increments (6 inches, 12 inches, 18 inches). **M:** Convert inches into feet using 1/4 increments (3 inches, 6 inches, 9 inches, 12 inches, 15 inches, 18 inches). **H:** Convert inches into feet using 1/3 and .5 increments (4 inches, 6 inches, 8 inches, 12 inches, 16 inches, 18 inches, 20 inches).
M05MED2.2	5.DR.B.2	Analyze graphical representations and describe the distribution of the numerical data through line plots or categorical data through bar graphs. Interpret information presented to answer investigative questions.	Use a line plot to solve addition/subtraction problems with whole numbers 1-60, 1/2, 1/4, 1/3, and .5.	**L:** Use a line plot to determine frequencies at a given value (0-10). **M:** Use a line plot to add/subtract (11-30). **H:** Use a line plot to add/subtract (31-60, 1/2, 1/4, 1/3, and .5).
M05MED3.4	5.GM.D.5, 5.GM.D.6	Measure the volume of a rectangular prism by counting unit cubes using standard and nonstandard units.	Solve real world addition problems using unit cubic inches.	**L:** Solve problems involving volumes 1-10. **M:** Solve problems involving volumes 11-20. **H:** Solve problems involving volumes 21-30.

Math Grade 5

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M05MED3.5B	5.GM.D.7	Relate volume of rectangular prisms to the operations of multiplication and addition. Solve problems in authentic contexts involving volume using a variety of strategies.	Solve V = b x h volume problems when provided a model that includes the area measure.	**L:** Solve problems involving volumes 0-10. **M:** Solve problems involving volumes 11-20. **H:** Solve problems involving volumes 21-30.
M05NBT1.1	5.NBT.A.1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	Use place value to compare numbers that are multiples of 10, ones versus tens place, and .5.	**L:** Identify multiples of 10 (10, 20, 30, 40, 50, 60). **M:** Identify the relation between the place values for the double-digit numbers (11, 22, 33, 44, 55). **H:** Identify which number is in the tens place and ones place.
M05NBT1.2	5.NBT.A.2	Use whole number exponents to denote powers of 10 and explain the patterns in placement of digits that occur when multiplying and/or dividing whole numbers and decimals by powers of 10.	Recognize that each place value to the left is 10 times greater and each to the right is 1/10 as much.	**L:** Identify which place is greater between the ones and tens place in a 2-digit number. **M:** Identify that the tens place is 10 times the ones place or the tenths place is 1/10 of the ones place. **H:** Compare place values across a number with digits in the tens, ones, and tenths places using a visual model or number line.

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M05NBT1.3a	5.NBT.A.3	Read, write, and compare decimals to thousandths.	Identify whole numbers 41-60 and decimals (1.5, 2.5, 3.5, 4.5, 5.5) and compare their magnitudes using <, =, and > symbols.	**L:** Identify which is greater: a whole number or a .5 decimal (e.g., 3 vs 3.5). **M:** Compare two decimals (.25, .5, or .75) using symbols (<, >, =). **H:** Use comparison symbols to compare a whole number and a decimal in a real-world context (e.g., Which costs more: $2.50 or $2?).
M05NBT1.4	5.NBT.A.4	Use place value understanding to round decimals to any place.	Identify the location of .5 decimals between two whole numbers on a number line; round .5 decimals up to the nearest whole number.	**L:** Identify location of 1.5, 2.5, 3.5. **M:** Identify location of 4.5, 5.5, 6.5, 7.5. **H:** Identify location of 8.5 and 9.5. Round all .5 decimals 1.5 to 9.5 up to the nearest whole number.

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05NBT2.5	5.NBT.B.5	Fluently multiply multi-digit whole numbers using accurate, efficient, and flexible strategies and algorithms based on place value and properties of operations.	Multiply whole numbers (under 20) using place value strategies.	**L:** Multiply single-digit numbers using visual models (e.g., 3 × 2). **M:** Multiply two-digit by one-digit numbers using area models (e.g., 12 × 3). **H:** Multiply two-digit numbers using place value strategies (e.g., 21 × 12).
M05NBT2.6	5.NBT.B.6	Use a variety of representations and strategies to find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.	Identify the quotient of a whole number divided by 2, 5, or 10 using visual models.	**L:** Identify the quotient of a whole number (up to 10) divided by 2 using grouped visual models. **M:** Identify the quotient of a whole number (up to 20) divided by 5 or 10 using arrays or area models. **H:** Identify the quotient of a whole number (up to 30) divided by 2, 5, or 10 using contextual story problems or unlabeled diagrams.

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05NBT2.7	5.NBT.B.7	Use a variety of representations and strategies to add, subtract, multiply, and divide decimals to hundredths. Relate the strategy to a written method and explain the reasoning used.	Use models to solve problems involving addition and subtraction of whole numbers 1-30; add decimals ending in .5.	**L:** Add numbers 0-10. **M:** Add and subtract numbers 11-20. **H:** Add and subtract numbers 21-30 and even multiples of .5.
M05NOF1.1	5.NF.A.1	Add and subtract fractions with unlike denominators, including common fractions larger than one and mixed numbers.	Add and subtract fractions ½, ¼, and ⅓ using visual or graphic models.	**L:** Add or subtract ½ using visual supports (e.g., ½ + ½ or 1 − ½). **M:** Add or subtract ¼ or ⅓ using graphic models (e.g., ¼ + ¼, 1 − ⅓). **H:** Add or subtract combinations of ½, ¼, and ⅓ using labeled visuals with unlike denominators.
M05NOF1.2	5.NF.A.2, 5.NF.B.3	Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve problems in authentic contexts involving division of whole numbers that result in answers that are common fractions or mixed numbers.	Divide a small set of objects into equal parts and express the result as a fraction.	**L:** Show 4 cookies shared by 2 people = 2 cookies each. **M:** Show 6 apples shared by 3 people = 2 apples each, written as 6 ÷ 3 = 2. **H:** Show 5 apples shared by 2 people = 2 ½ apples each, written as 5 ÷ 2 = 2½.

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05NOF2.4a	5.NF.B.4	Apply and extend previous understanding and strategies of multiplication to multiply a fraction or whole number by a fraction. Multiply fractional side lengths to find areas of rectangles, and represent fractional products as rectangular areas.	Identify representation that matches a verbal description involving the product of whole numbers and whole numbers with 1/2, 1/4, 1/3, and .5.	**L:** Identify products of whole numbers with solutions 0- 10. **M:** Identify products of whole numbers with solutions 11-30. **H:** Identify products of whole numbers, and whole numbers with fractions (1/2, 1/3, 1/4), and .5 with solutions 31-60.
M05NOF2.4b	5.NF.B.4	Apply and extend previous understanding and strategies of multiplication to multiply a fraction or whole number by a fraction. Multiply fractional side lengths to find areas of rectangles, and represent fractional products as rectangular areas.	Find the area of rectangles using models and simple multiplication.	**L:** Use unit squares to count area (e.g., 3 rows of 2 = 6). **M:** Multiply side lengths of rectangles with whole numbers (e.g., 4 × 5). **H:** Multiply side lengths with simple fractions (e.g., 1/2 × 6 = 3).

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05NOF2.5B	5.NF.B.5	Apply and extend previous understandings of multiplication and division to represent and calculate multiplication and division of fractions. Interpret multiplication as scaling (resizing) by comparing the size of products of two factors.	Recognize that multiplication by numbers greater than 1 increases magnitude while multiplying by a number less than one decreases magnitude.	**L:** Identify scaling when provided with a multiplication problem with factors 6-10. **M:** Identify scaling when provided with a multiplication problem involving factors -2 to -5. **H:** Identify scaling when provided with a multiplication problem involving factors 1/2, 1/4, 1/3, or .5.
M05NOF2.7a	5.NF.B.6, 5.NF.B.7	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions, including solving problems in authentic contexts.	Use verbal and graphic models to solve problems involving addition and subtraction of whole numbers 1-30, fractions (1/2, 1/4, 1/3), and decimals ending in .5.	**L:** Add numbers 0-10. **M:** Add and subtract numbers 11-20, 1/2, and 1/4. **H:** Add and subtract numbers 21-30, multiples of .5.
M05OAT1.1	5.OA.A.1	Write and evaluate numerical expressions that include parentheses.	Solve expressions that use parentheses given a verbal/visual model.	**L:** Solve expressions involving add/subtract of 0-10. **M:** Solve expressions involving add/subtract of 11-20. **H:** Solve expressions involving add/subtract of 41-60.

Math Grade 5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M05OAT1.2	5.OA.A.2	Write expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	Identify numerical expressions using whole numbers 1-60 with up to three terms that match a verbal description.	**L:** Match one-operation numerical expressions using addition and subtraction of 0-10. **M:** Match two-operation numerical expressions using addition and subtraction of 11-20. **H:** Match two-operation numerical expressions using 41-60.
M05OAT2.3	5.OA.B.3	Generate two numerical patterns using two given rules. Identify and analyze relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph them on a coordinate plane.	Identify missing numeral in a pattern when given the rule.	**L:** Identify missing numeral in +1 patterns (1-10). **M:** Identify missing numeral in +2, +3, +4, +5, and +10 patterns (2-40). **H:** Identify missing numeral in +6, +7, +8, +9 patterns (6-60).

Standards not Essentialized:
Please refer to Oregon's published content standards for the full description and context of these codes.
5.NF.B.5

Math Grade 6

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M06EXE1.1	6.AEE.A.1	Write and evaluate numerical expressions involving whole-number bases and exponents.	Identify expressions that match a verbal and/or graphic model.	**L:** Identify expressions that involve one term. **M:** Identify expressions involving two terms. **H:** Identify expressions involving three terms.
M06EXE1.3	6.AEE.A.3	Apply the properties of operations to generate equivalent expressions and to determine when two expressions are equivalent.	Identify equivalent expressions using one variable.	**L:** Identify expressions involving addition with single variable solutions 1-10. **M:** Identify expressions involving addition/subtraction with two term expression solutions involving 1-20. **H:** Identify expressions involving addition/subtraction with 2-3 term expression solutions 21-40.
M06EXE2.5	6.AEE.B.4	Understand solving an equation or inequality as a process of answering which values from a specified set, if any, make the equation or inequality true. Use substitution to determine which number(s) in a given set make an equation or inequality true.	Identify set that is a possible solution for a given equation/inequality.	**L:** Equations involving addition of one variable (e.g., "x") with solutions in 1-10 range. **M:** Equations involving add/subtract of 1-2 variables (e.g., "x" and "y") with solutions in 11-20 range. **H:** Equations/inequalities involving add/subtract of 1-3 variables (e.g., "x", "y", "z") with solutions in 1-10 range for inequalities or 21-30 range for equations.

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M06EXE2.7	6.AEE.B.6	Write and solve equations of the form $x + p = q$ and $px = q$ in problems that arise from authentic contexts for cases in which p, q and x are all nonnegative rational numbers.	Identify solutions for expressions or equations with up to three variables.	**L:** Identify solutions to expressions with coefficient totals (1-10). **M:** Identify solutions to expressions/equations with coefficient totals (11-20) with two variables. **H:** Identify solutions to equations with coefficient totals 1-20 with 3 variables.
M06EXE2.8	6.AEE.B.7	Write inequalities of the form $x > c$ and $x < c$ to represent constraints or conditions to solve problems in authentic contexts. Describe and graph on a number line solutions of inequalities of the form $x > c$ and $x < c$.	Identify which inequality matches a verbal description or number line representation.	**L:** Identify singular inequalities using one variable and 1-10. **M:** Identify singular inequalities using 1-2 variables and 1-20. **H:** Identify multiple inequalities using up to 3 variables and 11-40 (e.g., $2 \leq x \leq 10$ or separate inequalities such as $x \leq 7$ and $y > 4$).
M06EXE3.9	6.AEE.C.8	Use variables to represent and analyze two quantities to solve problems in authentic contexts. Including those that change in relationship to one another; write an equation to express one quantity in terms of the other quantity.	Identify or use an equation with one variable to represent a real world relationship between two quantities.	**L:** Identify a variable that stands for an unknown in a real-world situation (e.g., "x = number of apples"). **M:** Identify an equation with one variable that matches a simple pattern or real-world relationship (e.g., "y = x + 2"). **H:** Use a given equation with one variable (e.g., y = 2x) to solve a word problem involving two quantities.

Math Grade 6

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M06GEO1.1	6.GM.A.1	Find the area of triangles, quadrilaterals, and other polygons by composing into rectangles or decomposing into triangles and other shapes. Apply these techniques to solve problems in authentic contexts.	Sum areas of squares, rectangles, and triangles to determine the area of a total figure in square units.	**L:** Identify the total area of a figure composed of unit squares (1-10 square units). **M:** Identify the total area of a figure composed of squares and rectangles (11-20 square units). **H:** Identify the total area of figures composed of rectangles and triangles (21-40 square units).
M06GEO1.2	6.GM.A.2	Find the volume of a right rectangular prism with fractional edge lengths by filling it with unit cubes of appropriate unit fraction edge lengths. Connect and apply to the formulas V = l w h and V = b h to find volumes of right rectangular prisms with fractional edge lengths to solve problems in authentic contexts.	Find the volume of a figure given verbal and visual support (V= l x w x h or V = b x h).	**L:** Solve problems involving volumes 1-10. **M:** Solve problems involving volumes 11-20. **H:** Solve problems involving volumes 21-40.

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M06GEO1.3	6.GM.A.3	Draw polygons in the four quadrant coordinate plane given coordinates for the vertices and find the length of a side. Apply these techniques to solve problems in authentic contexts.	Identify location of a point on a geometric figure in quadrant 1 of the coordinate plane.	**L:** Identify coordinates for a missing point on a triangle. **M:** Identify coordinates for a missing point on a square or rectangle. **H:** Identify coordinates for a missing point on a rhombus or pentagon.
M06GEO1.4	6.GM.A.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures, including those from authentic contexts.	Match a 3D figure to the corresponding net.	**L:** Match a net to a cube (1-10 side lengths). **M:** Match a net to a rectangle (12-20 side lengths). **H:** Match a net to a triangular prism (21-40 side lengths).
M06RPR1.1	6.RP.A.1	Understand the concept of a ratio in authentic contexts, and use ratio language to describe a ratio relationship between two quantities.	Identify which ratio matches a verbal description.	**L:** Match ratios (1-3):(1-3). **M:** Match ratios from (4-10):(4-10). **H:** Match ratios (11-20):(11-20).
M06RPR1.2	6.RP.A.2, 6.RP.A.3	Understand the concept of a unit rate in authentic contexts and use rate language in the context of a ratio relationship.	Identify unit rate with numbers 1-30 or -1 to -5.	**L:** Identify unit rates (1-5). **M:** Identify unit rates (6-10). **H:** Identify unit rates (11-30, -1 to -5).

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M06RPR1.3a	6.RP.A.3	Use ratio and rate reasoning to solve problems in authentic contexts that use equivalent ratios, unit rates, percents, and/or measurement units.	Identify missing value in input/output table.	**L:** Tables with unit rates 1-2. **M:** Table with unit rates 3-5. **H:** Table with unit rates 6-10.
M06STP1.2	6.DR.B.2	Collect and record data with technology to identify and describe the characteristics of numerical data sets using quantitative measures of center and variability.	Identify average score from a dataset.	**L:** Calculate average of 2 numbers (0-5). **M:** Calculate average of 3 numbers (6-10). **H:** Calculate average of 4 numbers (6-10).
M06STP1.3	6.DR.C.3	Analyze data representations and describe measures of center and variability of quantitative data using appropriate displays.	Identify mean of a given dataset when provided with a definition.	**L:** Identify mean of three numbers in 1-10 range. **M:** Identify mean of 5 numbers in 11-20 range. **H:** Identify mean of 7 numbers in 21-40 range.

Math Grade 6

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M06STP2.5	6.DR.D.4	Interpret quantitative measures of center to describe differences between groups from data collected to answer investigative questions.	Interpret data in picture, bar, and line graphs to determine the number of observations, identify units, and find the median to describe differences between groups.	**L:** Identify the number of observations (1-10) in picture graphs with three entries. Identify the units used in picture graphs (1-10). Identify the median of 2-3 numbers in the 1-10 range. **M:** Identify the number of observations (1-20) in picture or bar graphs with 4-5 entries. Identify the units used in bar graphs (11-20). Identify the median of 4-5 numbers in the 11-20 range. **H:** Identify the number of observations (1-40) in bar or line graphs with 6-8 entries. Identify the units used in line graphs (21-40). Identify the median of 6-7 numbers in the 21-40 range.
M06TNS1.1	6.NS.A.1, 6.NS.B.3	Represent, interpret, and compute quotients of fractions to solve problems in authentic contexts involving division of fractions by fractions.	Use verbal and/or graphic models to solve problems involving addition and subtraction of whole numbers 0-40 and fractions 1/2, 1/4, 1/3, 1/8.	**L:** Add numbers 0-10 and 1/2. **M:** Add and subtract to/from numbers 11-30, and 1/4. **H:** Add and subtract to/from numbers 31-40, and fractions 1/3 and 1/8.

Math Grade 6

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M06TNS2.2	6.NS.B.2	Fluently divide multi-digit numbers using accurate, efficient, and flexible strategies and algorithms based on place value and properties of operations.	Use visual or verbal models to divide whole numbers up to 40 by 2, 5, or 10.	**L:** Divide whole numbers up to 20 by 2 using visual models (e.g., counters or groups). **M:** Divide whole numbers up to 40 by 5 or 10 using arrays, area models, or verbal strategies. **H:** Solve word problems involving fair sharing or grouping where division results in 0.5 or 0.25 using labeled visuals.
M06TNS2.4	6.NS.B.4	Determine greatest common factors and least common multiples using a variety of strategies. Apply the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.	Identify the greatest common factor (GCF) when provided with a table of factors for 1-30.	**L:** Identify GCF of numbers 1-10. **M:** Identify GCF of numbers 12-20. **H:** Identify GCF of numbers 21-30.

Math Grade 6

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M06TNS3.5	6.NS.C.5	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. Use positive and negative numbers to represent quantities in authentic contexts, explaining the meaning of zero in each situation.	Use visual and/or verbal models to solve real-world problems involving above/below zero (+/-1 to +/-10) using degrees, inches, feet, yards, meters, or miles.	**L:** Solve problems involving numbers +/- 1-3. **M:** Solve problems involving +/- 4-7. **H:** Solve problems involving +/- 8-10.

Math Grade 6

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M06TNS3.6a	6.NS.C.6	Represent a rational number as a point on the number line. Extend number line diagrams and coordinate axes to represent points on the line and in the coordinate plane with negative number coordinates.	Identify and represent rational numbers, including positive and negative values, fractions, and decimals, on number lines and coordinate planes.	**L:** Identify numbers the same distance from zero (±1 to ±3) on a number line. Find Y when given X and verbal directions in the first and second quadrants of a coordinate plane. Locate ½ and 0.5 on a number line between 0-10. **M:** Identify numbers the same distance from zero (±4 to ±7) on a number line. Find a point using verbal directions in the first and second quadrants of a coordinate plane. Locate ¼ and 0.25 on a number line between 11-20. **H:** Identify numbers the same distance from zero (±8 to ±10) on a number line. Find a point using given coordinates in the first and second quadrants of a coordinate plane. Locate ⅓ and ⅛ on a number line between 21-40.

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M06TNS3.7a	6.NS.C.7	Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. Write, interpret, and explain statements of order for rational numbers and absolute value in authentic applications.	Use a number line to compare and order rational numbers, including absolute values, and interpret inequalities in authentic contexts.	**L:** Compare numbers 0-20 on a number line using <, >, =. Identify the absolute value of numbers ±1 to ±3. **M:** Compare numbers 21-50 on a number line using <, >, =. Identify the absolute value of numbers ±4 to ±7. **H:** Compare numbers 51-80 on a number line using <, >, =. Identify the absolute value of numbers ±8 to ±10.

Standards not Essentialized:
Please refer to Oregon's published content standards for the full description and context of these codes.
6.AEE.A.1 6.DR.A.1 6.NS.C.8
6.AEE.B.5

Math Grade 7

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M07EXE1.1	7.AEE.A.1, 7.AEE.A.2	Identify and write equivalent expressions with rational numbers by applying associative, commutative, and distributive properties.	Add and subtract expressions with one variable (0-50, -1 to -10).	**L:** Add expressions (1-10). **M:** Add expressions (11-30). **H:** Add expression (31-50).
M07EXE2.3	7.AEE.B.3	Write and solve problems in authentic contexts using expressions and equations with positive and negative rational numbers in any form. Contexts can be limited to those that can be solved with one- or two-step linear equations.	Solve single-step real-life problems with whole numbers 1-20 and -1 to -10.	**L:** Solve real-life problems with A/S of numbers (1-10). **M:** Solve real-life problems with A/S (11-30) and M/D (0-20). **H:** Solve real-life problems with A/S (31-50 or -1 to -10) and M/D (21-40 or -1 to -5).
M07GEO1.1	7.GM.A.1	Solve problems involving scale drawings of geometric figures. Reproduce a scale drawing at a different scale and compute actual lengths and areas from a scale drawing.	Use geometric figure to identify changes in scale for numbers 1-20, 1/2, 1/4, 1/3, and 1/6.	**L:** Identify figures with changes in scale (1-2) x (1-5). **M:** Identify figures with changes in scale (1-2) x (6-10), 1/2 and 1/4. **H:** Identify figures with changes in scale (1-2) x (11-20), 1/3 and 1/6.
M07GEO1.2	7.GM.A.2	Draw triangles from three measures of angles or sides. Understand the possible side lengths and angle measures that determine a unique triangle, more than one triangle, or no triangle.	Identify geometric shapes, including triangles, circles, squares, rectangles, rhombuses, pentagons, and hexagons.	**L:** Identify triangles and squares. **M:** Identify circles and rectangles. **H:** Identify rhombuses, pentagons, and hexagons.

Math Grade 7

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M07GEO2.4	7.GM.B.3	Understand the relationship between area and circumference of circles. Choose and use the appropriate formula to solve problems with radius, diameter, circumference, and area of circles.	Use the formula for area and circumference of a circle to identify answers to area problems involving square inches and square feet.	**L:** Calculate area of square in square inches with areas (1-10). **M:** Calculate area of square in square inches and feet with areas (11-20). **H:** Calculate area of square or circle in square inches and feet with areas (21-40).
M07RPR1.1	7.RP.A.1	Solve problems in authentic contexts involving unit rates associated with ratios of fractions.	Compute unit rates using numbers 0-100 or -1 to -10 with tables, graphs, equations, diagrams, or verbal descriptions.	**L:** Identify unit rates (1-5). **M:** Identify unit rates (6-10). **H:** Identify unit rates (11-30, -1 to -5).
M07RPR1.2C	7.RP.A.2	Recognize and represent proportional relationships between quantities in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. Identify the constant of proportionality (unit rate) within various representations.	Identify an equation when provided with a verbal description.	**L:** Identify equations involving A/S (0-10). **M:** Identify equations involving A/S (0-25) or M/D (0-10). **H:** Identify equations involving A/S (26-50) or M/D (11-40).

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M07STP1.2	7.DR.B.2	Collect or consider data from a random sample to compare and draw inferences about a population with an unknown characteristic of interest.	Interpret data displays, totals, or means using <, >, and =.	**L:** Compare data, totals, or means (0-10) using <, >, =. **M:** Compare data totals, or means (11-20) using <, >, =. **H:** Compare data, totals, or means (21-50) using <, >, =.
M07STP2.3	7.DR.C.3	Analyze two data distributions visually to compare multiple measures of center and variability	Compare totals, means (averages), and medians for different groups using visual displays.	**L:** Identify greater total or mean (average) for two groups (1-10). **M:** Identify greater or lower mean (average) for two groups (11-30). **H:** Identify greater mean (average) or median for 2-3 groups (31-50).
M07STP2.4	7.DR.D.4	Interpret measures of center and measures of variability for numerical data from random samples to compare between two populations, and to answer investigative questions.	Identify median and mean of a given dataset when provided with a definition.	**L:** Identify median/mean of 2-3 numbers in 1-10 range. **M:** Identify median/mean of 4-5 numbers in 11-30 range. **H:** Identify median/mean of 6-7 numbers in 31-50 range.
M07STP3.5	7.RP.B.4, 7.RP.B.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Represent probabilities as fractions, decimals, and percents.	Identify probabilities of 50%, 25%, and 75%.	**L:** Identify 50% probabilities. **M:** Identify 25% probabilities. **H:** Identify 75% probabilities.

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M07STP3.7a	7.RP.B.6	Develop a probability model and use it to find probabilities of events. Compare theoretical and experimental probabilities and explain possible sources of discrepancy if any exists.	Identify probability of being selected for 1-10 grouped items out of up to 40.	**L:** Identify probabilities 1 out of 1item to 1 out of 10 items. **M:** Identify probabilities 1-5 out of 11 items to 1-5 out of 20 items. **H:** Identify probabilities 6-10 out of 21 items to 6-10 out of 40 items.
M07STP3.7b	7.RP.B.6	Develop a probability model and use it to find probabilities of events. Compare theoretical and experimental probabilities and explain possible sources of discrepancy if any exists.	Compare observed frequencies using <, >, and =.	**L:** Compare frequencies (1-6). **M:** Compare frequencies (7-8). **H:** Compare frequencies (9-10).
M07TNS1.1A	7.NS.A.1	Apply and extend previous understandings of addition, subtraction and absolute value to add and subtract rational numbers in authentic contexts. Understand subtraction as adding the additive inverse, $p - q = p + (-q)$.	Use number lines and mathematical reasoning to add and subtract rational numbers, including whole numbers, decimals, percentages, and fractions, in authentic contexts.	**L:** Combine numbers to make zero (1-5 with -1 to -5). **M:** Combine numbers to make zero (6-10 with -6 to -10). **H:** Combine numbers to make zero (11-20 with -11 to -20).

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M07TNS1.2A	7.NS.A.2, 7.NS.A.3	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. Interpret operations of rational numbers solving problems in authentic contexts.	Multiply and divide rational numbers, including whole numbers, fractions, decimals, and percentages, and interpret their meaning in authentic contexts.	**L:** Identify the sign for multiplication problems with positive numbers (0-10). Identify halves (½, 2/4, 3/6, 4/8) and decimals (.5) in data displays and match them. Solve multiplication and division problems involving decimals (.5, .25, .75) and whole numbers (0-10). **M:** Identify the sign for multiplication problems with positive numbers (11-20). Identify quarters (¼, 2/8, 3/12, 4/16) and decimals (.25) in data displays and match them. Solve multiplication and division problems involving fractions (½, ¼, ⅓, ⅛) and whole numbers (11-20). **H:** Identify the sign for multiplication problems with positive numbers (21-40) and negative numbers (-1 to -5). Identify thirds (⅓, 6/18, 9/27) and eighths (⅛, 2/16, 3/24) in data displays and match them with their decimals (.75 and .125). Solve multiplication and division problems involving percentages (25%, 50%, 75%) of whole numbers

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Standards not Essentialized:

Please refer to Oregon's published content standards for the full description and context of these codes.

7.AEE.B.4	7.DR.A.1	7.GM.B.4	7.NS.A.1	7.RP.A.2
		7.GM.B.4		7.RP.A.3
				7.RP.B.7
				7.RP.B.7

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M08EXE1.1	8.AEE.A.1	Apply the properties of integer exponents using powers of 10 to generate equivalent numerical expressions.	Identify equivalent expressions using powers 1-3.	**L:** Identify the number that matches a first power expression (1-20). **M:** Identify the number that matches a second power expression. **H:** Identify the number that matches a 3rd power expression.
M08EXE1.3	8.AEE.A.3	Estimate very large or very small quantities using scientific notation with a single digit times an integer power of ten.	Identify a number written as a power of ten that matches a given number provided, when given a model.	**L:** Identify 1-4 x 10 to the first power. **M:** Identify 4-6 x 10 to the second power. **H:** Identify 7-9 x 10 to the second power.
M08EXE1.4	8.AEE.A.4	Perform operations with numbers expressed in scientific notation.	Identify whether power makes a number larger, smaller, or the same.	**L:** Identify powers of 1 as not changing a number's value (1-20). **M:** Identify positive powers as making a number larger (21-50). **H:** Identify negative powers, -1, -2, and -3 as making a number smaller (51-100).
M08EXE2.5	8.AEE.B.5	Graph proportional relationships in authentic contexts. Interpret the unit rate as the slope of the graph, and compare two different proportional relationships represented in different ways.	Interpret linear graphs to determine the slope (0-20, -1 to -5).	**L:** Interpret linear slopes (0-5). **M:** Interpret linear slopes (6-10). **H:** Interpret linear slopes (11-20) and (-1 to -5).

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M08EXE2.6	8.AEE.B.6	Write the equation for a line in slope intercept form y = mx + b, where m and b are rational numbers, and explain in context why the slope m is the same between any two distinct points.	Identify lines with the same slopes in similar triangles.	**L:** Determine lines with the same slope when triangles are oriented the same way (45-45-90). **M:** Determine lines with the same slope when triangles are rotated 90 degrees (30-60-90). **H:** Determine lines with the same slopes when triangles are rotated 180 degrees (acute or obtuse, non-isosceles triangles).
M08EXE3.7A	8.AEE.C.7, 8.AFN.A.3	Solve linear equations with one variable including equations with rational number coefficients, with the variable on both sides, or whose solutions require using the distributive property and/or combining like terms.	Solve linear equations with one variable (0-20).	**L:** Solve equations with one A/S operation. **M:** Solve equations with 1 M/D operation. **H:** Solve equations with 1 A/S and 1 MD operation.
M08FUN1.1	8.AFN.A.1	Understand in authentic contexts, that the graph of a function is the set of ordered pairs consisting of an input and a corresponding output.	Identify missing numbers in function output tables.	**L:** Identify missing multiples of 2-5. **M:** Identify missing multiples of 6-10. **H:** Identify missing multiples of 11-20.

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M08FUN1.2	8.AFN.A.2	Compare the properties of two functions represented algebraically, graphically, numerically in tables, or verbally by description.	Identify the output table that matches a line graph.	**L:** Match graph of line with slope (1-3) to output table. **M:** Match graph of line with slope (4-10) to output table. **H:** Match graph of line with slope (11-20, 1/2, 1/4, or -1/2, -1/4, -1 to -5) to output table.
M08FUN2.4	8.AFN.B.4	Construct a function to model a linear relationship in authentic contexts between two quantities.	Identify the graph that matches an output table.	**L:** Match output table to graph of line with slope (1-3). **M:** Match output table to graph of line with slope (4-10) to output table. **H:** Match output table to graph of line with slope (11-20 and/or -1 to -5) to output table.
M08FUN2.5	8.AFN.B.5	Describe qualitatively the functional relationship between two quantities in authentic contexts by analyzing a graph.	Identify slope as positive, negative, zero, or undefined.	**L:** Identify positive slopes 1-3. **M:** Identify negative slopes 4-10. **H:** Identify zero or undefined slopes.

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M08GEO1.2	8.GM.A.2	Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations.	Identify congruent triangles that have been rotated 0-270 degrees.	**L:** Identify congruent equilateral triangles with 0, 30, 45, 60, or 90 degree rotation. **M:** Identify congruent 30-60-90 or 45-45-90 triangles with 120,135,150, or 80 degree rotation. **H:** Identify congruent acute, obtuse, or isosceles triangle with 210, 225, 240, or 270 degree rotation.
M08GEO1.4	8.GM.A.4	Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and/or dilations.	Identify similar triangles.	**L:** Identify similar equilateral triangles. **M:** Identify similar 30-60-90 or 45-45-90 triangles. **H:** Identify similar acute, obtuse, or isosceles triangles.
M08GEO2.6	8.GM.B.6, 8.GM.B.7, 8.GM.B.8	Distinguish between applications of the Pythagorean Theorem and its converse in authentic contexts.	Identify the right angle and hypotenuse of a triangle; identify the hypotenuse given the side lengths and the formula.	**L:** Identify the right angle of a right triangle. **M:** Identify the hypotenuse in a right triangle. **H**: Identify the appropriate hypotenuse length given the side lengths and the formula.

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M08GEO3.9	8.GM.C.9	Choose and use the appropriate formula for the volume of cones, cylinders, and spheres to solve problems in authentic contexts.	Find the volume of a prism given a formula and example (V= l x w x h) using cubic inches, feet, and yards.	**L:** Solve problems involving volumes 1-20. **M:** Molve problems involving volumes 21-50. **H:** Solve problems involving volumes 51-100.
M08STP1.1	8.DR.B.2, 8.DR.C.3	Analyze patterns of association between two quantitative or categorical variables and reason about distributions to compare groups.	Identify the line of best fit for a scatter plot.	**L:** Identify lines of best fit for scatter plots that are widely different with data that have tight variance (+/- 1 to 3). **M:** Identify lines of best fit for scatter plots that are moderately different and data that have wider variance (+/- 1 to 5). **H:** Identify lines of best fit for scatter plots that differ slightly with data that have the widest variance. (+/- 1 to 10).
M08STP1.3	8.DR.D.4	Interpret scatter plots for bivariate quantitative data to investigate patterns of association between two quantities to answer investigative questions.	Compare rates using slower/less, faster/more, same (mph, beats per second, $ per hour, $ per lb).	**L:** Identify faster rate using 0-20. **M:** Identify slower, faster, or same rate using 21-50. **H:** Identify slower, faster, or same rate using 51-100.

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ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M08STP1.4	8.DR.A.1	Formulate statistical investigative questions to articulate research topics and uncover patterns of association seen in bivariate categorical data.	Interpret trend in line developed from real-world data.	**L:** Identify positive trends in data with slopes 1-5. **M:** Identify positive slopes 6-10. **H:** Identify negative trends -1 to -10, zero, or undefined slopes.
M08TNS1.1	8.NS.A.1	Know that real numbers that are not rational are called irrational.	Perform math operations with rational numbers.	**L:** Perform A/S operations with 1/2 and .5. **M:** Perform A/S and M/D operations with 1/4, 1/3, .25, .75. **H:** Perform A/S and M/D with tenths, 1/10 to 5/10, .10 to .50, and mixed numbers with 1/2 and 1/4.
M08TNS1.2	8.AEE.A.2, 8.NS.A.2	Use rational approximations of irrational numbers to compare size and locate on a number line.	Identify square roots of perfect squares up to 100; locate irrational numbers on a number line.	**L:** Identify square roots of 1, 4, 9, and 16. **M:** Identify square roots of 25, 36, 49, and 64 on a number line. **H:** Locate square roots (81, 100), as well as pi and the square root of 2 on a number line.

Standards not Essentialized:
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8.AEE.C.8 8.GM.A.1
8.GM.A.3
8.GM.A.5

ORExt Standard Code	Equivalent OR Standard Code	2021 Oregon Mathematics Standards	Oregon Alternate Academic Achievement Standard (Essentialized Standard)	Low (L), Medium (M), High (H) Parameters
M11ALG1.1a	HS.AEE.A.1	Interpret an expression which models a quantity by viewing one or more of its parts as a single entity. Reason about how changes in parts of the expression impact the whole, and vice versa.	Identify parts of an expression, including terms, factors, and coefficients.	**L:** Identify parts of first degree expressions. **M:** Identify parts of second degree expressions. **H:** Identify parts of third degree expressions.
M11ALG2.3	HS.AEE.D.11	Graph and explain why the points in a half plane are solutions to a linear inequality and the solutions to a system of inequalities are the points in the intersection of corresponding half planes. Interpret the meaning of the coordinates of these points in authentic contexts.	Solve linear equations with one variable (0-40).	**L:** Solve equations with 1 A/S operation (0-10). **M:** Solve equations with 1 A/S or M/D operation (0-20). **H:** Solve equations with 2 operations A/S and/or M/D (0-40).
M11FUN1.1a	HS.AFN.A.2	Use function notation and interpret statements that use function notation in terms of the context and the relationship it describes.	Identify the linear relationship between two quantities as positive, negative, or undefined.	**L:** Identify positive relationships when provided a line graph. **M:** Identify negative or undefined relationships when provided a line graph. **H:** Identify the relationship between two quantities given a scenario.

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M11FUN1.2	HS.AFN.D.8	Model situations involving arithmetic patterns. Use a variety of representations such as pictures, graphs, or an explicit formula to describe the pattern.	Identifies common difference or missing term in arithmetic or geometric sequence.	**L:** Identify the positive common difference in an arithmetic sequence (1-10). **M:** Identify missing term in arithmetic sequence with common differences (1 -20). **H:** Identify missing term in geometric sequence with ratios (1/2, 1/4, 1/3, & 10-20).
M11FUN2.5	HS.AFN.B.5, HS.AFN.A.1	Relate the domain of a function to its graph and to its context.	Identify input values (domain) that match a function table, graph, or real-world situation.	**L:** Identify the input (x-value) for a given output in a simple function table. **M:** Identify the set of input values (domain) from a graph of a function. **H:** Identify or use input values (domain) that make sense in a real-world context (e.g., "You can’t buy half a ticket").
M11FUN2.6	HS.AFN.A.3	Calculate and interpret the average rate of change of a function over a specified interval.	Identify slope as positive, negative, zero, or undefined.	**L:** Identify positive slopes 1-5. **M:** Identify negative slopes 1-10. **H**: Identify zero or undefined slopes.

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M11FUN3.7a	HS.AFN.C.7	Graph functions using technology to show key features.	Identify the x- and y-intercepts for line graphs.	**L:** Identify positive x intercept and/or y intercept (1-10). **M:** Identify negative x intercept and/or y intercept (-1 to -10). **H:** Identify negative and positive intercepts of x and/or y axis (-10 to 10, including the origin).
M11FUN3.9	HS.AFN.B.4	Compare properties of two functions using multiple representations. Distinguish functions as members of the same family using common attributes.	Match the algebraic, graphic, numeric, or verbal format of a linear function with its graph.	**L:** Identify a line with negative or positive slope when provided with a model. **M:** Match a numeric description of a line with its graph (numeric = descriptions of slopes, points on line). **H:** Match an algebraic description of a line with its graph.
M11GMG1.1	HS.GM.C.10	Use geometric shapes, their measures, and their properties to describe real world objects, and solve related authentic modeling and design problems.	Identify the geometric shape of a given object (e.g., traffic sign).	**L:** Identify objects that are shaped like squares. **M:** Identify objects that are shaped like circles or rectangles. **H:** Identify objects that are shaped like rhombuses, pentagons, or octagons.

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M11GPE2.4	HS.GM.D.14	Use the coordinate plane to determine parallel and perpendicular relationships, and the distance between points.	Use the coordinate plane to identify points and describe simple geometric relationships such as equal distance or parallel lines.	**L:** Identify two points that are the same distance from a third point on a coordinate grid. **M:** Identify a pair of lines as parallel based on points in the coordinate plane. **H:** Use coordinates to describe or confirm equal distances or parallel relationships in a figure on the coordinate plane.
M11GRT2.5	HS.GM.A.2	Verify experimentally the properties of a dilation given a center and a scale factor. Solve problems in authentic contexts involving similar triangles or dilations.	Identify similar triangles, circles, squares, rectangles, rhombuses, pentagons, hexagons, and octagons.	**L:** Identify similar triangles, circles, and squares. **M:** Identify similar rectangles, and rhombuses. **H:** Identify similar pentagons, hexagons, and octagons.
M11NAQ1.1	HS.NQ.B.2	Use reasoning to choose and interpret measurement units consistently in formulas, graphs, and data displays, as a way to understand problems and to guide the solution of multi-step problems.	Interpret the scale in graphs and data displays. Identify units that are appropriate to scale.	**L:** Identify the units used for y-axis (range of 0-20). **M:** Compare units in terms of magnitude (0-40). **H:** Identify units that are relevant to scale of problem.

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M11STP1.1	HS.DR.C.8	Identify appropriate ways to summarize and then represent the distribution of univariate and bivariate data multiple ways with graphs and/or tables. Use technology to present data that supports interpretation of tabular and graphical representations.	Identify quantities of a given value for a line plot, histogram, or dot plot.	**L:** Identify quantities of values in the 1-5 range with 3 value entries. **M:** Identify quantities of values in the 0-10 range with 4-5 value entries. **H:** Identify quantities of values in the 0-20 range with 6-8 value entries.
M11STP1.2	HS.DR.C.9	Use statistics appropriate to the shape of the data distribution to compare the center and spread of two or more different data sets.	Identify the mean, median, and range of a given dataset when provided with a model, algorithm, or definition.	**L:** Identify mean of 2-3 numbers in 1-20 range when provided a model or algorithm. **M:** Identify mean or median of 4-5 numbers in 21-50 range when provided a model or algorithm. **H:** Identify the range of 6-10 numbers in 51-100 range when provided a model, algorithm, or definition.

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M11STP1.5	HS.DR.B.7	Apply an appropriate data collection plan when collecting primary data or selecting secondary data for the statistical investigative question of interest.	Identify values in a two-way frequency table, given a model.	**L:** Identify the totals in a two-way frequency table (1-20). **M:** Identify the marginal frequencies in a two-way frequency table (21-50). **H:** Compare frequencies in a two-way frequency table using the terms more, fewer, same.
M11STP1.6a	HS.DR.C.8, HS.DR.D.11	Identify appropriate ways to summarize and then represent the distribution of univariate and bivariate data multiple ways with graphs and/or tables. Use technology to present data that supports interpretation of tabular and graphical representations.	Identify the type of linear relationship between variables given linear graphs in quadrant one.	**L:** Identify positive linear relationships. **M:** Identify negative linear relationships. **H:** Identify positive and negative slopes.

Standards not Essentialized:
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HS.AFN.D.10	HS.DR.C.8	HS.GM.A.2	HS.NQ.B.3
	HS.DR.D.12	HS.GM.A.3	
	HS.DR.E.15	HS.GM.B.5	
		HS.GM.C.8	