## Progress in Mathematics

Correlation to the Archdiocese of Cincinnati 2020 Graded Course of Study for Mathematics

## Grade 5



## STANDARD 1 - OPERATION AND ALGEBRAIC THINKING (OA)

## M.OA.5.1 Write and interpret numerical expression.

| M.OA.5.1.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. | Chapter 3 Division <br> 3-14 Order of Operations-pp. 122-123 <br> 3-14A Variables and Expressions-Online |
| :---: | :---: |
| M.OA.5.1.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7 , then multiply by 2 " as $2 \times(8+7)$. | Chapter 2 Multiplication <br> 2-2 Properties of Multiplication-pp. 68-69 <br> Chapter 3 Division <br> 3-14A Variables and Expressions-Online <br> Chapter 14 More Concepts in Algebra <br> 14-1 Algebraic Expressions and Equations-pp. 440-441 <br> 14-2 Properties of Equality-pp. 442-443 |
| M.OA.5.1.3 Recognize that $3 \times(18,932+921)$ is three times as large as 18,932 +921 , without having to calculate the indicated sum or product. | Chapter 3 Multiplication <br> 3-1 Multiplication Properties-pp. 44-45 <br> Chapter 4 Division <br> 4-10 Order of Operations-pp. 88-89 <br> 4-11 Expressions—pp. 90-91 |

M.OA.5.2 Analyze patterns and relationships.

| M.OA.5.2.1 Generate two numerical patterns using two given rules. | Chapter 14 More Concepts in Algebra <br> 14-13B Sequences-Online <br> 14-13C Compare Sequences-Online |
| :---: | :---: |
| M.OA.5.2.2 Identify apparent relationships between corresponding terms. | Chapter 14 More Concepts in Algebra <br> 14-13B Sequences-Online <br> 14-13C Compare Sequences-Online |
| M.OA.5.2.3 Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "ADD3" and the number 0 , and given the rule "ADD6" and the starting number 0 , generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why it is so. | Chapter 14 More Concepts in Algebra <br> 14-13 The Coordinate Plane-pp. 464-465 14-13A Using Coordinate Graphs-Online <br> 14-13B Sequences-Online <br> 14-13C Compare Sequences-Online <br> 14-14 Function Tables-pp. 466-467 <br> 14-15 Functions and Coordinate Graphs-pp. 468469 |

## STANDARD 2 - NUMBERS AND OPERATIONS IN BASE TEN (NBT)

Grade 5 Standard \& Benchmark Description
Progress in Mathematics, Grade 5
M.NBT.5.1 Understand the Place Value System.

| M.NBT.5.1.1 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. | Chapter 1 Place Value, Addition, and Subtraction <br> 1-1 What Is a Billion?-pp. 30-31 <br> 1-2 Place Value to Billions-pp. 32-33 <br> 1-3 Expanded Form-pp. 34-35 <br> 1-3A Powers of Ten-Online <br> 1-4 Thousandths-pp. 36-37 <br> 1-4A Decimals and Expanded Form—Online <br> 1-5 Decimals Greater Than One-pp. 38-39 <br> Chapter 8 Decimals: Addition and Subtraction <br> 8-2 Decimals and Place Value-pp. 270-27 |
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| M.NBT.5.1.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 . | Chapter 1 Place Value, Addition, and Subtraction 1-3A Powers of Ten-Online <br> Chapter 2 Multiplication <br> 2-3 Mental Math Special Factors-pp. 70-71 <br> 2-4 Patterns in Multiplication-pp. 72-73 |
| M.NBT.5.1.3 Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 . | Chapter 1 Place Value, Addition, and Subtraction 1-3A Powers of Ten-Online <br> Chapter 2 Multiplication <br> 2-3 Mental Math Special Factors-pp. 70-71 <br> 2-4 Patterns in Multiplication-pp. 72-73 <br> Chapter 9 Decimals: Multiplication and Division <br> 9-1 Multiply by 10, 100, and 1000-pp. 294-295 <br> 9-6 Divide by 10, 100, and 1000-pp. 304-305 |
| M.NBT.5.1.4 Use whole-number exponents to denote powers of 10 . | Chapter 1 Place Value, Addition, and Subtraction 1-3A Powers of Ten-Online |
| M.NBT.5.1.5 Read, write, and compare decimals to thousandths. | Chapter 1 Place Value, Addition, and Subtraction <br> 1-4 Thousandths-pp. 36-37 <br> 1-4A Decimals and Expanded Form—Online <br> 1-5 Decimals Greater Than One-pp. 38-39 <br> 1-6 Compare and Order Numbers-pp. 40-41 <br> Chapter 8 Decimals: Addition and Subtraction <br> 8-1 Decimal Sense-pp. 268-269 <br> 8-2 Decimals and Place Value-pp. 270-271 |

## STANDARD 2 - NUMBERS AND OPERATIONS IN BASE TEN (NBT)

Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.NBT.5.1 Understand the Place Value System.

| M.NBT.5.1.6 Read and write decimals to thousandths using base-ten numerals, number names, and expanded form. For example, $\begin{aligned} & 347.392=3 \times 100+4 \times 10+7 \times 1+3 \times(1 / 10)+ \\ & 9 \times(1 / 100)+2 \times(1 / 1000) . \end{aligned}$ | Chapter 1 Place Value, Addition, and Subtraction <br> 1-4 Thousandths-pp. 36-37 <br> 1-4A Decimals and Expanded Form-Online <br> 1-5 Decimals Greater Than One-pp. 38-39 <br> Chapter 8 Decimals: Addition and Subtraction <br> 8-2 Decimals and Place Value-pp. 270-271 |
| :---: | :---: |
| M.NBT.5.1.7 Compare two decimals to thousandths based on meanings of the digits in each place, using $\geq$, $=$, and $\leq$ symbols to record the results of comparisons. | Chapter 1 Place Value, Addition, and Subtraction <br> 1-6 Compare and Order Numbers: Compare and Order Decimals-pp. 40-41 <br> Chapter 8 Decimals: Addition and Subtraction <br> 8-1 Decimal Sense-pp. 268-269 |
| M.NBT.5.1.8 Use place value understanding to round decimals to any place. | Chapter 1 Place Value, Addition, and Subtraction <br> 1-7 Rounding Numbers: Rounding Decimals-pp. 42-43 <br> Chapter 8 Decimals: Addition and Subtraction <br> 8-4 Estimate Decimal Sums (rounding)-pp. 274-275 <br> 8-7 Estimate Decimal Differences (rounding)-pp. 280-281 <br> Chapter 9 Decimals: Multiplication and Division <br> 9-2 Estimate Decimal Products (rounding)-pp. 296-297 <br> 9-10 Estimate with Money: Rounding to the Nearest Cent-p. 313 |

M.NBT.5.2 Perform operations with multi-digit whole numbers and with decimals to hundredths.
M.NBT.5.2.1 Fluently multiply multi-digit whole numbers using the standard algorithm.

## Chapter 2 Multiplication

2-6 Zeros in the Multiplicand-pp. 76-77
2-7 Multiply Two Digits-pp. 78-79
2-8 Multiply Three Digits—pp. 80-81
2-9 Zeros in the Multiplier-pp. 82-83
2-12 Problem Solving Applications: Mixed Reviewpp. 88-89

## STANDARD 2 - NUMBERS AND OPERATIONS IN BASE TEN (NBT)

Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.NBT.5.2 Perform operations with multi-digit whole numbers and with decimals to hundredths.
M.NBT.5.2.2 Find whole-numbers quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations rectangular arrays, and/or area models.

## Chapter 3 Division

3-1 Understanding Division-pp. 96-97
3-2 Division Patterns—pp. 98-99
3-3 Three-Digit Quotients-pp. 100-101
3-5 Zeros in the Quotient-pp. 104-105
3-6 Short Division—pp. 106-107
3-9A Use Arrays to Divide—Online
3-10 Teens as Divisors-pp. 114-115
3-10A Use Strategies to Divide—Online
3-11 Two-Digit Divisors-pp. 116-117
3-16 Problem Solving Applications: Mixed Reviewpp. 126-127

## Chapter 8 Decimals: Addition and Subtraction

8-2A Use Models to Add Decimals-Online
8-2B Mental Math Add Decimals-Online
8-3 Add Decimals-pp. 272-273
8-4 Estimate Decimal Sums-pp. 274-275
8-5 Add More Decimals-pp. 276-277
8-5A Use Models to Subtract Decimals-Online
8-6 Subtract Decimals-pp. 278-279
8-8 Subtract More Decimals—pp. 282-283

## Chapter 9 Decimals: Multiplication and Division

9-1 Multiply by 10, 100, and 1000-pp. 294-295
9-2A Multiply Decimals-Online
9-3 Multiply Decimals by Whole Numbers-pp. 298-299
9-3A Model Multiplying Two Decimals—Online
9-4 Multiply Decimals by Decimals—pp. 300-301
9-5 Zeros in the Product-pp. 302-30
9-6 Divide by 10, 100, and 1000-pp. 304-305
9-6A Model Dividing a Decimal by a Whole Number-Online
9-7 Divide Decimals by Whole Numbers-pp. 306307
9-8 Zeros in Division-pp. 308-309
9-8A Model Dividing a Decimal by a Decimal-Online
9-8B Divide Decimals—Online
9-12 Problem Solving Applications: Mixed Reviewpp. 316-31

## STANDARD 3 - NUMBERS AND OPERATIONS - FRACTIONS (MD)

## Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.NF.5.1 Use equivalent fractions as a strategy to add and subtract fractions.
M.NF.5.1.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $2 / 3+5 / 4=$ $8 / 12+15 / 12=23 / 12$. In general, $a / b+c / d=$ $(a d+b c) / b d$.

## Chapter 5 Fractions: Addition and Subtraction

5-1A Add Fractions with Unlike DenominatorsOnline
5-2 Add Fractions Unlike Denominators-pp. 166-167
5-3 Add Three Fractions-pp. 168-169
5-4 Add Mixed Numbers-pp. 170-171
5-5 Rename Mixed Number Sums—pp. 172-173
5-6A Subtract Fractions with Unlike DenominatorsOnline
5-7 Subtract Fractions Unlike Denominators-pp. 176-177
5-8 More Subtraction of Fractions-pp. 178-179
5-8A Subtract Fractions and Whole Numbers from Mixed Numbers-Online
5-9 Subtract Mixed Numbers-pp. 180-181
5-10 Subtraction with Renaming-pp. 182-183
5-11 More Renaming in Subtraction-pp. 184-185

## Chapter 5 Fractions: Addition and Subtraction

5-1 Rename Fraction Sums Like Denominators-pp. 164-165
5-2 Add Fractions Unlike Denominators-pp. 166-167
5-3 Add Three Fractions-pp. 168-169
5-4 Add Mixed Numbers-pp. 170-171
5-5 Rename Mixed Number Sums—pp. 172-173
5-6 Rename Differences Like Denominators-pp. 174-175
5-7 Subtract Fractions Unlike Denominators-pp. 176-177
5-8 More Subtraction of Fractions-pp. 178-179
5-9 Subtract Mixed Numbers-pp. 180-181
5-9A Use Benchmark Fractions-Online
5-10 Subtraction with Renaming-pp. 182-183
5-11 More Renaming in Subtraction-pp. 184-185
5-12 Estimate Sums and Differences of Mixed Numbers-pp. 186-187
5-13 Problem Solving Strategy: Work Backward-pp. 188-189

## STANDARD 3 - NUMBERS AND OPERATIONS - FRACTIONS (MD)

## Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.NF.5.1.3 Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $2 / 5+1 / 2=3 / 7$, by observing that $3 / 7 \leq 1 / 2$.

Chapter 5 Fractions: Addition and Subtraction<br>5-9A Use Benchmark Fractions-Online 5-12 Estimate Sums and Differences of Mixed Numbers-pp. 186-187

M.NF.5.2 Apply and extend previous understands of multiplication and division to multiply and divide fractions.

| M.NF.5.2.1 Interpret a fraction as division of the numerator by the denominator ( $a / b=a \div b$ ). | Chapter 6 Fractions: Multiplication and Division 6-7A Interpret the Remainder-Online |
| :---: | :---: |
| M.NF.5.2.2 Solve word problems involving divisions of whole numbers leading to answers in the form of fractions a mixed number. | Chapter 6 Fractions: Multiplication and Division 6-7A Interpret the Remainder-Online |
| M.NF.5.2.3 By using visual fraction models or equations to represent the problem. For example, interpret $3 / 4$ as the result of dividing 3 by 4 , noting that $3 / 4$ multiplied by 4 equals 3 , and that when 3 wholes are shared equally among 4 people each person has a share of size $3 / 4$, If 9 people want to share a 50-pound sack of rice equally by weight how many pounds of rice should each person get? Between what two whole numbers where does your answer lie? | Chapter 6 Fractions: Multiplication and Division <br> 6-1 Multiply Fractions-pp. 198-199 <br> 6-2 Multiply Fractions by Fractions-pp. 200-201 <br> 6-5 Rename Mixed Numbers as Fractions-pp. 206-207 <br> 6-6 Multiply Fractions and Mixed Numbers-pp. 208-209 <br> 6-7 Multiply Mixed Numbers-pp. 210-211 <br> 6-7A Interpret the Remainder-Online <br> 6-8 Division of Fractions—pp. 212-213 <br> 6-10A Division with a Unit Fraction-Online |
| M.NF.5.2.4 Apply and extend previous understandings of multiplications to multiply a fraction or whole number by a fraction. | Chapter 6 Fractions: Multiplication and Division <br> 6-1 Multiply Fractions-pp. 198-199 <br> 6-2 Multiply Fractions by Fractions-pp. 200-201 <br> 6-2A Use Properties to Multiply Fractions and Whole Numbers-Online <br> 6-3 Multiply Fractions and Whole Numbers-pp. 202-203 |

## STANDARD 3 - NUMBERS AND OPERATIONS - FRACTIONS (MD)

## Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.NF.5.2 Apply and extend previous understands of multiplication and division to multiply and divide fractions.
M.NF.5.2.5 Interpret the product $(a / b) \times q$ into $b$ equal parts, equivalently, as the result of a sequence of operations $a \times q \div b$. For example, using a visual fraction model to show (2/3) $x 4=8 / 3$, and create a story context for this equation. Do the same with $(2 / 3) \times(4 / 5)=$ 8/15.
M.NF.5.2.6 Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
M.NF.5.2.7 Interpret multiplication as scaling (resizing)
M.NF.5.2.8 Compare the size of a product to the size of the other factor, without performing the indicated multiplication.
M.NF.5.2.9 Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case).

## Chapter 6 Fractions: Multiplication and Division

6-1 Multiply Fractions-pp. 198-199
6-2 Multiply Fractions by Fractions-pp. 200-201
6-2A Use Properties to Multiply Fractions and Whole Numbers-Online
6-3 Multiply Fractions and Whole Numbers-pp. 202-203

## Chapter 12 Metric Measurement, Area, and Volume

12-5A Find Areas of Rectangles and Squares-Online

Chapter 6 Fractions: Multiplication and Division<br>6-2B Scaling Fractions-Online

## Chapter 6 Fractions: Multiplication and Division 6-2B Scaling Fractions-Online

## Chapter 6 Fractions: Multiplication and Division

 6-2B Scaling Fractions-OnlineM.NF.5.2.10 Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a / b=(n \times a) /(n \times b)$ to the effect of multiplying $a / b$ by 1 .

## Chapter 6 Fractions: Multiplication and Division 6-2B Scaling Fractions-Online

## STANDARD 3 - NUMBERS AND OPERATIONS - FRACTIONS (MD)

## Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.NF.5.2 Apply and extend previous understands of multiplication and division to multiply and divide fractions.
M.NF.5.2.11 Solve real world problems involving multiplication of fractions and mixed numbers. For example, by using visual fractions models or equations to represent the problem.
M.NF.5.2.12 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
M.NF.5.2.13 Interpret division of a unit fraction by a non-zero whole number and compute such quotients. For example, create a story context for $(1 / 3) \div 4=1 / 12$ because $(1 / 12)+4=1 / 3$.
M.NF.5.2.14 Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story content for $4 \div$ $(1 / 5)=20$ because $20 \times(1 / 5)=4$.
M.NF.5.2.15 Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions. For example, by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1 / 2 \mathrm{lb}$. of chocolate equally? How many $1 / 3$ cup servings are in 2 cups of raisins?

## Chapter 6 Fractions: Multiplication and Division

6-2 Multiply Fractions by Fractions-pp. 200-201
6-3 Multiply Fractions and Whole Numbers-pp. 202-203
6-4 Multiply Fractions Using the GCF-pp. 204-205
6-5 Rename Mixed Numbers as Fractions-pp.
206-207
6-6 Multiply Fractions and Mixed Numbers-pp. 208-209
6-7 Multiply Mixed Numbers-pp. 210-211
6-10B Word Problems Involving Fractions-Online

## Chapter 6 Fractions: Multiplication and Division

6-10A Division with a Unit Fraction-Online 6-12 Divide Fractions by Whole Numbers-pp. 220-221

## Chapter 6 Fractions: Multiplication and Division

6-10A Division with a Unit Fraction-Online
6-12 Divide Fractions by Whole Numbers-pp. 220-221

## Chapter 6 Fractions: Multiplication and Division

6-8 Division of Fractions-pp. 212-213
6-10 Divide Whole Numbers by Fractions-pp. 216-217
6-10A Division with a Unit Fraction-Online

## Chapter 6 Fractions: Multiplication and Division

6-10 Divide Whole Numbers by Fractions-pp. 216-217
6-10A Division with a Unit Fraction-Online 6-10B Word Problems Involving Fractions-Online 6-12 Divide Fractions by Whole Numbers-pp. 220-221

## STANDARD 4 - MEASUREMENT AND DATA (MD)

Grade 5 Standard \& Benchmark Description
Progress in Mathematics, Grade 5

## M.MD.5.2 Represent and interpret data.

M.MD.5.2.1 Make a line plot to display a data set of measurements in fractions of a unit, ( $1 / 2,1 / 4$, 1/8).
M.MD.5.2.2 Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, give different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

## Chapter 7 Statistics and Probability <br> 7-7 Line Plots-pp. 250-251

Chapter 12 Metric Measurement, Area, and Volume

12-12A Line Plots-Online

## Chapter 7 Statistics and Probability

7-7 Line Plots—pp. 250-251

## Chapter 12 Metric Measurement, Area, and Volume <br> 12-12A Line Plots-Online

M.MD.5.3 Geometric measurement: understand concepts of volume and relate volume to multiplications and to addition.

| M.MD.5.3.1 Recognize volume as an attribute of solid figures and understand concepts of volume measurement. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-12 Estimate Volume-pp. 404-405 |
| :---: | :---: |
| M.MD.5.3.2 A cube with side length 1 unit, called a "unit cube" is said to have "one cubic unit" of volume, and can be used to measure volume. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-12 Estimate Volume-pp. 404-405 |
| M.MD.5.3.3 A solid figure which can be packed without gaps or overlaps using $n$ cubic units. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-12 Estimate Volume-pp. 404-405 |
| M.MD.5.3.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft. and improvised units. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-12 Estimate Volume-pp. 404-405 |

## STANDARD 4 - MEASUREMENT AND DATA (MD)

Grade 5 Standard \& Benchmark Description

## Progress in Mathematics, Grade 5

M.MD.5.3 Geometric measurement: understand concepts of volume and relate volume to multiplications and to addition.

| M.MD.5.3.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-11A Find Volume-Online <br> 12-12 Estimate Volume-pp. 404-405 |
| :---: | :---: |
| M.MD.5.3.6 Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-11A Find Volume-Online <br> 12-12 Estimate Volume-pp. 404-405 |
| M.MD.5.3.7 Show that the volume is the same as would be found by multiplying the height by the area of the base. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-11A Find Volume-Online <br> 12-12 Estimate Volume-pp. 404-405 |
| M.MD.5.3.8 Represent three whole-number products as volume. For example, to represent the associative property of multiplication. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-11A Find Volume—Online <br> 12-12 Estimate Volume-pp. 404-405 |
| M.MD.5.3.9 Apply the formulas $V=I \times W \times b$ and $V=b \times b$ for rectangular prisms with wholenumber edge lengths in the context of solving real world and mathematical problems. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11 Volume-pp. 402-403 <br> 12-11A Find Volume-Online |
| M.MD.5.3.10 Recognize volume as additive. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11B Separate Solid Figures—Online |
| M.MD.5.3.11 Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems. | Chapter 12 Metric Measurement, Area, and Volume <br> 12-11B Separate Solid Figures-Online |

## STANDARD 5 - GEOMETRY (G)

Grade 5 Standard \& Benchmark Description
Progress in Mathematics, Grade 5
M.G.5.1 Graph points on the coordinate plane to solve real-world and mathematical problems.

| M.G.5.1.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system with the intersection of the line (the origin) arranged to coincide with the $O$ on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. | Chapter 14 More Concepts in Algebra 14-13 The Coordinate Plane-pp. 464-465 14-13A Using Coordinate Graphs-Online |
| :---: | :---: |
| M.G.5.1.2 Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond. For example, $x$ - axis and $x$ coordinate, $y$ - axis and $y$-coordinate. | Chapter 14 More Concepts in Algebra 14-13 The Coordinate Plane-pp. 464-465 14-13A Using Coordinate Graphs-Online |
| M.G.5.1.3 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. | Chapter 14 More Concepts in Algebra <br> 14-13A Using Coordinate Graphs-Online 14-15 Functions and Coordinate Graphs-pp. 468469 |

M.G.5.2 Classify two-dimensional figures into categories based on their properties.

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M.G.5.2.1 Classify two-dimensional figures in a hierarchy based on properties.
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## Skills Update

Identify Polygons-p. 13

## Chapter 10 Geometry

10-5 Triangles-pp. 332-333
10-6 Quadrilaterals-pp. 334-335
10-6A Classify Quadrilaterals-Online

