

Knowre Math: **Grade 3** Curriculum

Chapter 1 Place Value

| Lesson | Topic | GA Standards of Excellence |
|---|--|-----------------------------------|
| 1-1 Models of Numbers Less Than 10,000 | A) Using Base Ten Blocks to Model Numbers | MGSE2.NBT.3 |
| 1-2 Place Values Less Than 1,000,000 | A) Place Values Less Than Millions | MGSE2.NBT.3 |
| | B) Expanded and Standard Form of Numbers | |
| 1-3 Reading and Writing Numbers Less Than 10,000 | A) Reading and Writing Three-Digit Numbers | MGSE4.NBT.2 |
| | B) Reading and Writing Four-Digit Numbers | |
| 1-4 Comparing and Ordering Numbers Less Than 10,000 | A) Place Values to Compare Numbers Less Than 1,000 | MGSE4.NBT.2 |
| | B) Comparing Numbers Less Than 1,000 | |
| | C) Place Values to Compare Numbers Less Than 10,000 | |
| | D) Comparing Numbers Less Than 10,000 | |
| | E) Ordering Numbers Less Than 10,000 | |
| 1-5 Rounding | A) Rounding Numbers to the Nearest Ten, Hundred, and Thousand on a Number Line | MGSE3.NBT.1 |
| | B) Rounding Numbers to the Nearest Ten, Hundred, and Thousand | |

Knowre Math: **Grade 3** Curriculum

Chapter 2 Adding and Subtracting

| Lesson | Topic | GA Standards of Excellence |
|--|--|----------------------------|
| 2-1 Using Models to Add | A) Base Ten Blocks to Add when the Sum is Less Than 1,000 | MGSE3.NBT.2 |
| | B) Place Value Charts to Add when the Sum is Less Than 1000 | |
| 2-2 Using the Standard Algorithm to Add | A) Vertical Addition of Two Numbers with Two or Fewer Digits | MGSE3.OA.8, MGSE3.NBT.2 |
| | B) Vertical Addition of Two Numbers with Three or Fewer Digits | |
| | C) Vertical Addition of Two Numbers with Four or Fewer Digits | |
| 2-3 Using Models to Subtract | A) Base Ten Blocks to Subtract when the Minuend is Less Than 1,000 | MGSE3.OA.8, MGSE3.NBT.2 |
| | B) Place Value Charts to Subtract when the Minuend is Less Than 10,000 | |
| | C) Place Value Charts to Subtract when Regrouping Over Zero | |
| 2-4 Using the Standard Algorithm to Subtract | A) Vertical Subtraction without Regrouping when the Minuend is Less Than 10,000 | MGSE3.OA.8, MGSE3.NBT.2 |
| | B) Vertical Subtraction with Regrouping when the Minuend is Less Than 10,000 | |
| | C) Vertical Subtraction with Regrouping Over Zero when the Minuend is Less Than 10,000 | |
| 2-5 Horizontal Addition and Subtraction | A) Horizontal Addition of Two Numbers | MGSE3.OA.8, MGSE3.NBT.2 |
| | B) Horizontal Subtraction of Two Numbers | |
| 2-6 Addition and Subtraction Relationships | A) Horizontal Addition and Subtraction of Three or More Numbers | MGSE3.OA.8, MGSE3.NBT.2 |
| | B) Relationships Between Addition and Subtraction Sentences | |
| | C) Missing Numbers in Addition and Subtraction Sentences | |
| 2-7 Estimating Sums and Differences | A) Estimating Sums | MGSE3.OA.8 |
| | B) Estimating Differences | |

Knowre Math: **Grade 3** Curriculum

Chapter 3 Modeling Multiplication

| Lesson | Topic | GA Standards of Excellence |
|--|--|---|
| 3-1 Equal Groups | A) Describing Equal Groups | MGSE3.OA.1 |
| | B) Writing Repeated Addition Expressions from Equal Groups | |
| | C) Finding the Total Number of Objects in Equal Groups | |
| 3-2 The Meaning of Multiplication | A) Multiplication as Equal Groups | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7 |
| | B) Repeated Addition and Multiplication Expressions | |
| | C) Equal Groups and Multiplication Expressions | |
| 3-3 Multiplication with Equal Groups and Addends | A) Parts of Multiplication Sentences | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Repeated Addition to Multiply | |
| | C) Equal Groups to Multiply | |
| 3-4 Multiplication with Arrays | A) Arrays and Multiplication Sentences | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Arrays to Multiply | |
| 3-5 Multiplication with Number Lines and Hundreds Charts | A) Number Lines and Multiplication Sentences | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Number Lines to Multiply | |
| | C) Hundreds Charts to Multiply | |
| 3-6 The Order of Factors in Multiplication | A) Commutative Property of Multiplication | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.5, MGSE3.OA.7 |

Knowre Math: Grade 3 Curriculum

Chapter 4 Multiplication Fluency

| Lesson | Topic | GA Standards of Excellence |
|---|---|---|
| 4-1 Multiplying by Zero and One | A) Strategies to Multiply by One | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Multiply by Zero | |
| 4-2 Multiplying by Two and Four | A) Strategies to Multiply by Two | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Multiply by Four | |
| 4-3 Multiplying by Five and Ten | A) Strategies to Multiply by Five | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Multiply by Ten | |
| 4-4 Multiplying by Three and Six | A) Strategies to Multiply by Three | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Multiply by Six | |
| 4-5 Multiplying by Seven, Eight, and Nine | A) Strategies to Multiply by Seven | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Multiply by Eight | |
| | C) Strategies to Multiply by Nine | |
| 4-6 Basic Multiplication Facts | A) Single Digit Multiplication | MGSE3.OA.1, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Multiplying Ten and a One-Digit Number | |

Knowre Math: **Grade 3** Curriculum

Chapter 5 Modeling Division

| Lesson | Topic | GA Standards of Excellence |
|--------------------------------------|--|---|
| 5-1 Equal Groups and Division | A) Sharing Objects into Equal Groups | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7 |
| | B) Division as Equal Groups | |
| 5-2 The Meaning of Division | A) Equal Groups and Division Expressions | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Parts of Division Sentences | |
| | C) Equal Groups to Divide | |
| 5-3 Division with Arrays | A) Arrays and Division Sentences | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Arrays to Divide | |
| 5-4 Division with Number Lines | A) Number Lines and Division Sentences | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Number Lines to Divide | |
| 5-5 Division as Repeated Subtraction | A) Division as Repeated Subtraction | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.4, MGSE3.OA.7 |
| | B) Repeated Subtraction and Division Sentences | |
| | C) Repeated Subtraction to Divide | |

Knowre Math: **Grade 3** Curriculum

Chapter 6 Division Fluency

| Lesson | Topic | GA Standards of Excellence |
|--------------------------------|---|---|
| 6-1 Dividing by One and Two | A) Strategies to Divide by One | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Divide by Two | |
| 6-2 Dividing by Five and Ten | A) Strategies to Divide by Five | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Divide by Ten | |
| 6-3 Dividing by Three and Four | A) Strategies to Divide by Three | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Divide by Four | |
| 6-4 Dividing by Six and Seven | A) Strategies to Divide by Six | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Divide by Seven | |
| 6-5 Dividing by Eight and Nine | A) Strategies to Divide by Eight | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) Strategies to Divide by Nine | |
| 6-6 Basic Division Facts | A) One-Digit Quotients When Dividing by One-Digit Numbers | MGSE3.OA.2, MGSE3.OA.3, MGSE3.OA.7, MGSE3.OA.8 |
| | B) One-Digit Quotients When Dividing by Ten | |

Knowre Math: **Grade 3** Curriculum

Chapter 7 Mixed Operations and Patterns

| Lesson | Topic | GA Standards of Excellence |
|---|---|---|
| 7-1 Multiplication and Division Relationships | A) Relationships Between Multiplication and Division Sentences | MGSE3.OA.4, MGSE3.OA.5, MGSE3.OA.6, MGSE3.OA.8 |
| | B) Missing Numbers in Multiplication and Division Sentences | |
| 7-2 Expressions and Equations | A) Addition and Subtraction Expressions | MGSE3.OA.5, MGSE3.OA.8 |
| | B) Multiplication and Division Expressions | |
| | C) Expressions with More Than One Operation | |
| 7-3 Mixed Operations | A) Multiplying Three or More Numbers | MGSE3.OA.7, MGSE3.OA.8 |
| | B) Dividing Three or More Numbers | |
| | C) Expressions with More Than One Operation | |
| 7-4 Patterns | A) Repeating Patterns | MGSE3.OA.9 |
| | B) Patterns and Rules | |
| | C) Even and Odd Numbers | |
| 7-5 Multiplying by Multiples of Ten | A) Base Ten Blocks to Multiply a One-Digit Number and a Multiple of Ten | MGSE3.OA.5, MGSE3.OA.9, MGSE3.NBT.3 |
| | B) Place Value to Multiply a One-Digit Number and a Multiple of Ten | |
| | C) Multiplying a One-Digit Number and a Multiple of Ten | |
| 7-6 Distributive Property to Multiply | A) Using Arrays to Model the Distributive Property | MGSE3.MD.7.c |
| | B) Equal Expressions with Split Factors | |
| | C) Using the Distributive Property to Multiply | |

Knowre Math: Grade 3 Curriculum

Chapter 8 Fractions

| Lesson | Topic | GA Standards of Excellence |
|-------------------------------|--|--|
| 8-1 Fraction Basics | A) Equal Parts | MGSE3.NF.1, MGSE3.G.2 |
| | B) Parts of Fractions | |
| | C) Reading and Writing Fractions | |
| 8-2 Fractions as Shaded Parts | A) Modeling Fractions with Fraction Bars | MGSE3.NF.1, MGSE3.G.2 |
| | B) Unit Fractions | |
| 8-3 Fractions on Number Lines | A) Modeling Fractions on Number Lines | MGSE3.NF.1, MGSE3.NF.2.a, MGSE3.NF.2.b |
| 8-4 Equivalent Fractions | A) Models to Write Equivalent Fractions | MGSE3.NF.3.a, MGSE3.NF.3.b, MGSE3.NF.3.c |
| | B) Models to Simplify Fractions | |
| 8-5 Comparing Fractions | A) Comparing Fractions with the Same Denominator | MGSE3.NF.3.d |
| | B) Comparing Fractions with the Same Numerator | |
| | C) Ordering Fractions with the Same Numerator or Denominator | |

Chapter 9 Measurement

| Lesson | Topic | GA Standards of Excellence |
|---------------------|---|----------------------------|
| 9-1 Inches and Feet | A) Using Inches to Measure Objects | MGSE3.MD.4 |
| | B) Using Feet to Measure Objects | |
| 9-2 Volume and Mass | A) Estimating Metric Units of Volume | MGSE3.MD.2 |
| | B) Estimating Metric Units of Mass | |
| 9-3 Clocks | A) Clockwise and Counterclockwise | MGSE3.MD.1 |
| | B) Telling Time on an Analog Clock | |
| 9-4 Elapsed Time | A) Time in a Given Number of Hours and Minutes | MGSE3.MD.1 |
| | B) Time a Given Number of Hours and Minutes Age | |
| | C) Elapsed Time | |
| 9-5 Money | A) Values of Sets of Mixed Coins | MGSE2.MD.8 |
| | B) Values of Sets of Bills and Coins | |

Knowre Math: **Grade 3** Curriculum

Chapter 10 Data

| Lesson | Topic | GA Standards of Excellence |
|------------------|--|-----------------------------------|
| 10-1 Pictographs | A) Making Scaled Pictographs | MGSE3.MD.3 |
| | B) Using Scaled Pictographs to Make Tally and Frequency Tables | |
| | C) Reading Scaled Pictographs | |
| 10-2 Bar Graphs | A) Using Scaled Bar Graphs to Make Tally and Frequency Tables | MGSE3.MD.3 |
| | B) Making Scaled Bar Graphs | |
| | C) Reading Scaled Bar Graphs | |
| 10-3 Line Plots | A) Understanding Line Plots | MGSE3.MD.4 |
| | B) Using Line Plots to Make Tally and Frequency Tables | |
| | C) Making Line Plots | |
| | D) Reading Line Plots | |

Knowre Math: **Grade 3** Curriculum

Chapter 11 Two-Dimensional Figures

| Lesson | Topic | GA Standards of Excellence |
|--|---|--|
| 11-1 Attributes of Two-Dimensional Figures | A) Sides, Angles, and Vertices of Two-Dimensional Figures | MGSE3.G.1 |
| | B) Attributes of Figures Given Their Names | |
| | C) Identifying Figures with Given Attributes | |
| 11-2 Quadrilaterals | A) Defining Quadrilaterals | MGSE3.G.1 |
| | B) Attributes of Rectangles, Rhombuses, and Squares | |
| 11-3 Perimeter | A) Perimeter on a Grid | MGSE3.MD.8 |
| | B) Perimeters of Figures with All Side Lengths Given | |
| | C) Perimeters of Rectangles and Squares | |
| 11-4 Area | A) Area on a Grid | MGSE3.MD.5.a, MGSE3.MD.5.b, MGSE3.MD.6, MGSE3.MD.7.a, MGSE3.MD.7.b |
| | B) Areas of Rectangles and Squares | |
| 11-5 Area Extensions | A) Shapes with Equal Perimeters or Areas | MGSE3.MD.8 |
| | B) Areas of Figures Composed of Rectangles and Squares | |