| $\underset{\substack{\text { Graw } \\ \text { Gdilation } \\ \text { Edicathematics }}}{\mathrm{R}} \underset{\text { MAthem }}{\mathrm{E}} \mathrm{B} \mid \mathrm{R} \mathrm{D}$ |  | Grade K -- Pennsylvania Core Standards for Mathematics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Counting \& Cardinality |  |  | Numbers \& Operations in Base Ten | Operations and Algebraic Thinking |
| No. | Unit/Lesson | CC.2.1.K.A. 1 | CC.2.1.K.A. 2 | CC.2.1.K.A. 3 | CC.2.1.K.B. 1 | CC.2.2.K.A. 1 |
| 0.1.0 | Numbers to 10 |  |  |  |  |  |
| 0.1.1 | Count 1-4 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.2 | Count 1-5 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.3 | Count 1-7 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.4 | Count 1-9 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.5 | Count 1-10 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.6 | Count 0-10 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.7 | Represent 0-2 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.8 | Represent 0-5 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.9 | Represent 0-8 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.1.10 | Represent 0-10 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.2.0 | Numbers to 20 |  |  |  |  |  |
| 0.2.1 | Count and Represent 0-13 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.2.2 | Count and Represent 0-16 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.2.3 | Count and Represent 0-19 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.2.4 | Count and Represent 0-20 | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.3.0 | Compare Numbers to 10 |  |  |  |  |  |
| 0.3.1 | Match to Find More |  |  | $\checkmark$ |  |  |
| 0.3.2 | More, Fewer, and Same Amounts |  |  | $\checkmark$ |  |  |
| 0.3.3 | Count to Find the Greater Number |  |  | $\checkmark$ |  |  |
| 0.3.4 | Compare Two Numbers |  |  | $\checkmark$ |  |  |
| 0.3.5 | Compare within 5 |  |  | $\checkmark$ |  |  |
| 0.3.6 | Compare within 10 |  |  | $\checkmark$ |  |  |
| 0.4.0 | Understand Addition within 10 |  |  |  |  |  |
| 0.4.1 | Represent Addition within 5 |  |  |  |  | $\checkmark$ |
| 0.4.2 | Put Together Groups within 5 |  |  |  |  | $\checkmark$ |
| 0.4.3 | Explore Number Pairs for 0-5 |  |  |  |  | $\checkmark$ |
| 0.4.4 | Explore Number Pairs for 6-9 |  |  |  |  | $\checkmark$ |
| 0.4.5 | Explore Number Pairs for 10 |  |  |  |  | $\checkmark$ |
| 0.4.6 | Find Numbers that Make 10 |  |  |  |  | $\checkmark$ |
| 0.4.7 | Represent Addition within 10 |  |  |  |  | $\checkmark$ |
| 0.4.8 | Put Together Groups within 10 |  |  |  |  | $\checkmark$ |
| 0.5.0 | Understand Subtraction within 10 |  |  |  |  |  |
| 0.5.1 | Decompose Numbers within 5 |  |  |  |  | $\checkmark$ |
| 0.5.2 | Represent Subtraction within 5 |  |  |  |  | $\checkmark$ |
| 0.5.3 | Solve Subtraction Equations within 5 |  |  |  |  | $\checkmark$ |
| 0.5.4 | Decompose Numbers 6-9 |  |  |  |  | $\checkmark$ |
| 0.5.5 | Represent Subtraction within 9 |  |  |  |  | $\checkmark$ |
| 0.5.6 | Solve Subtraction Equations within 9 |  |  |  |  | $\checkmark$ |
| 0.5.7 | Decompose 10 |  |  |  |  | $\checkmark$ |
| 0.5.8 | Solve Subtraction Problems within 10 |  |  |  |  | $\checkmark$ |
| 0.6.0 | Place Value with Teen Numbers |  |  |  |  |  |
| 0.6.1 | Show 11-14 as 10 Ones and Some More |  |  |  | $\checkmark$ |  |
| 0.6.2 | Show 15-19 as 10 Ones and Some More |  |  |  | $\checkmark$ |  |
| 0.6.3 | Teen Numbers with Drawings and Equations |  |  |  | $\checkmark$ |  |
| 0.6.4 | Compose and Decompose Teen Numbers |  |  |  | $\checkmark$ |  |
| 0.7.0 | Number Patterns |  |  |  |  |  |
| 0.7.1 | One Less/One More | $\checkmark$ | $\checkmark$ |  |  |  |
| 0.7.2 | Count to 100 by Ones | $\checkmark$ |  |  |  |  |
| 0.7.3 | Count to 100 by Tens | $\checkmark$ |  |  |  |  |
| 0.7.4 | Count Forward | $\checkmark$ |  |  |  |  |


|  |  | Grade 1 -- Pennsylvania Core State Standards for Mathematics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbers \& Operations in Base Ten |  |  | Operations and Algebraic Thinking |  | Measurement and Data |
| No. | Unit/Lesson | CC.2.1.1.B. 1 | CC.2.1.1.B. 2 | CC.2.1.1. B. 3 | CC.2.2.1.A. 1 | CC.2.2.1.A. 2 | CC.2.4.1.A. 1 |
| 1.1.0 | Problem Solving: Addition |  |  |  |  |  |  |
| 1.1.1 | Model Joining Stories (to 5) |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.1.2 | Ways to Make 6 and 7 |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.1.3 | Ways to Make 8 and 9 |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.1.4 | Model Joining Stories (to 9) |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.1.5 | Commutative Property and Add Zero Property |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.1.6 | Ways to Make 10 |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.1.7 | Model Equations to Represent Addition Stories |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.1.8 | Write Equations to Represent Addition Stories |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.2.0 | Problem Solving: Subtraction |  |  |  |  |  |  |
| 1.2.1 | Addition and Subtraction Fact Families |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.2.2 | Model Take From Stories |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.2.3 | Find Missing Parts of 7 and 8 |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.2.4 | Model Equations to Represent Subtraction Stories |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.2.5 | Find Missing Parts of 9 and 10 |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.2.6 | Model Take-Apart/Separating Stories |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.2.7 | Write Equations to Represent Subtraction Stories |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.2.8 | Compare Stories |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.2.9 | Relate Addition and Subtraction |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.3.0 | Addition and Subtraction Strategies |  |  |  |  |  |  |
| 1.3.1 | Count On |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.3.2 | Use a Known Fact to Add |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.3.3 | Related Subtraction Facts through 12 |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.3.4 | Use 10 to Subtract |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.3.5 | Related Subtraction Facts through 20 |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.3.6 | Find Unknowns on Addition Table |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.4.0 | More Work with Addition |  |  |  |  |  |  |
| 1.4.1 | Numbers Related to 10 |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.4.2 | Make 10 to Add 7 and 8 |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.4.3 | Make 10 to Add 9 |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.4.4 | Use Strategies to Add |  |  | $\checkmark$ | $\checkmark$ |  |  |
| 1.4.5 | Add Three Addends |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.4.6 | Addition and Subtraction Equations |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| 1.5.0 | Understand Place Value |  |  |  |  |  |  |
| 1.5.1 | Count Forward to 120 | $\checkmark$ |  |  |  |  |  |
| 1.5.2 | Teen Numbers |  | $\checkmark$ |  |  |  |  |
| 1.5.3 | Tens and Ones |  | $\checkmark$ |  |  |  |  |
| 1.5.4 | Make Numbers with Tens and Extras |  | $\checkmark$ |  |  |  |  |
| 1.5.5 | Compare Numbers through Hundreds |  | $\checkmark$ |  |  |  |  |
| 1.5.6 | Read and Write Numbers | $\checkmark$ | $\checkmark$ |  |  |  |  |
| 1.6.0 | Use Place Value and Properties of Operations to Add and Subt |  |  |  |  |  |  |
| 1.6.1 | Add Two Multiples of 10 |  |  | $\checkmark$ |  |  |  |
| 1.6.2 | Add a Multiple of 10 to a 2-Digit Number on a Hundred Chart |  |  | $\checkmark$ |  |  |  |
| 1.6.3 | Add a Multiple of 10 to a 2-Digit Number |  |  | $\checkmark$ |  |  |  |
| 1.6.4 | Add 2-Digit Numbers |  |  | $\checkmark$ |  |  |  |
| 1.6.5 | Subtract Multiples of 10 from Multiples of 10 |  |  | $\checkmark$ |  |  |  |
| 1.7.0 | Number Strategies and Measurement |  |  |  |  |  |  |
| 1.7.1 | Skip-Counting |  |  |  | $\checkmark$ |  |  |
| 1.7.2 | Add or Subtract 1 and 10 on a Number Chart |  |  | $\checkmark$ |  |  |  |
| 1.7.3 | Compare and Order Lengths |  |  |  |  |  | $\checkmark$ |
| 1.7.4 | Measure Length with Same-Size Units |  |  |  |  |  | $\checkmark$ |


| Mc <br> Graw <br> Education $\mathrm{R} E \mathrm{BATHEMATICS}$ <br> MAT  |  | Grade 2 -- Pennsylvania Core State Standards for Mathematics |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbers \& Operations in Base Ten |  |  | Operations and Algebraic Thinking |  | Measurement and Data |  |
| No. | Unit/Lesson | CC.2.1.2.B. 1 | CC.2.1.2.B. 2 | CC.2.1.2.B. 3 | CC.2.2.2.A. 1 | CC.2.2.2.A. 2 | CC.2.4.2.A. 1 | CC.2.4.2.A. 6 |
| 2.1.0 | Use Models to Add and Subtract |  |  |  |  |  |  |  |
| 2.1.1 | Use the Addition Table to Add |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.1.2 | Use the Addition Table to Add and Subtract |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.1.3 | Find Missing Addends with the Hundred Chart |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.1.4 | Add and Subtract with the Hundred Chart |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.1.5 | Add and Subtract within 20 Using Base Ten Blocks |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.1.6 | Add and Subtract within 20 Using the Number Line |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.1.7 | Add and Subtract within 100 Using Base Ten Blocks |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.1.8 | Add and Subtract within 100 Using the Number Line |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.1.9 | Use Tape Diagrams to Add |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.1.10 | Use Tape Diagrams to Add and Subtract |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.2.0 | Use Strategies to Add and Subtract |  |  |  |  |  |  |  |
| 2.2.1 | Make a Ten to Add |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.2.2 | Make a Ten to Subtract |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.2.3 | Two-step Problems |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |
| 2.2.4 | Make a Simpler Problem to Add |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.2.5 | Make a Simpler Problem to Subtract |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.2.6 | Problem Solving with Sums to 100 |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.2.7 | Problem Solving with Sums and Differences to 100 |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.3.0 | Numbers to 1000 and Place Value |  |  |  |  |  |  |  |
| 2.3.1 | Numbers through 100 | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| 2.3.2 | Numbers through 1000 | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| 2.3.3 | Represent Numbers on a Number Line |  | $\checkmark$ |  |  |  |  |  |
| 2.3.4 | Compare Numbers Using Place Value | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| 2.4 .0 | Addition with Multi-Digit Numbers |  |  |  |  |  |  |  |
| 2.4.1 | Add Tens to 2-Digit Numbers |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.4.2 | Find Sums of 2-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.4.3 | Use Strategies to Add 3-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.4.4 | Add Tens to 3-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.4.5 | Find Sums of 3-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.4.6 | Find Sums of Multi-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.4.7 | Find Sums of More than Two Numbers |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.4.8 | Problem Solving with Addition |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.5.0 | Subtraction with Multi-Digit Numbers |  |  |  |  |  |  |  |
| 2.5.1 | Decompose to Subtract 2-Digit Numbers |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.5.2 | Find Differences of 2-Digit Numbers |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.5.3 | Problem Solving with 2-Digit Numbers |  |  | $\checkmark$ | $\checkmark$ |  |  |  |
| 2.5.4 | Use Strategies to Subtract 3-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.5.5 | Subtract Tens from 3-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.5.6 | Subtract 3-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.5.7 | Subtract Multi-Digit Numbers |  |  | $\checkmark$ |  |  |  |  |
| 2.6.0 | Measure Length |  |  |  |  |  |  |  |
| 2.6.1 | Measurement Tools |  |  |  |  |  | $\checkmark$ |  |
| 2.6.2 | Lengths in Inches and Feet |  |  |  |  |  | $\checkmark$ |  |
| 2.6.3 | Lengths in Centimeters and Meters |  |  |  |  |  | $\checkmark$ |  |
| 2.6.4 | Compare Lengths |  |  |  |  |  | $\checkmark$ |  |
| 2.7.0 | Add and Subtract Lengths |  |  |  |  |  |  |  |
| 2.7.1 | Find the Sums of Lengths |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 2.7.2 | Find the Differences of Lengths |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| 2.7.3 | Problem Solving with Lengths |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| 2.7.4 | Compare Problems with Lengths |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |


|  |  | Grade 3 -- Pennsylvania Core State Standards for Mathematics |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbers \& Operations in Base Ten | Numbers \& Operations Fractions | Operations and Algebraic Thinking |  |  |  | Geometry | Measurement and Data |  |  |
| No. | Unit/Lesson | CC.2.1.3.B. 1 | CC.2.1.3.C. 1 | CC.2.2.3.A. 1 | CC.2.2.3.A. 2 | CC.2.2.3.A. 3 | CC.2.2.3.A. 4 | CC.2.3.3.A. 2 | CC.2.4.3.A. 1 | CC.2.4.3.A. 2 | CC.2.4.3.A. 5 |
| 3.1.0 | Understand Multiplication |  |  |  |  |  |  |  |  |  |  |
| 3.1.1 | Equal Groups: Repeated Addition |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.1.2 | Equal Groups: Unknown Items Per Group |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.1.3 | Equal Groups: Unknown Number of Groups |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.1.4 | Equal Groups: Rows |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.1.5 | Equal Groups: The Array Model |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.1.6 | Commutative Property of Multiplication |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| 3.1.7 | Multiplicative Identity Property and Zero Property of Multiplication |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.1.8 | Problem Solving with Multiplication |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.2.0 | Concept of Area |  |  |  |  |  |  |  |  |  |  |
| 3.2.1 | Compare Areas of Rectangles |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| 3.2.2 | Tile Rectangles to Find Area |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| 3.2.3 | Area Formula |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| 3.2.4 | Decompose a Rectangle to Find Area |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| 3.2.5 | Area with Customary Units |  |  | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |
| 3.2.6 | Area with Metric Units |  |  | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |
| 3.2.7 | Decompose Figures to Find Area |  |  |  |  |  |  |  |  |  | $\checkmark$ |
| 3.3.0 | Patterns in Multiplication |  |  |  |  |  |  |  |  |  |  |
| 3.3.1 | Multiply by 2 |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |
| 3.3.2 | Multiply by 3 and 5 |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |
| 3.3.3 | Introduction to Multiplication Tables |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |
| 3.3.4 | Use Multiplication Tables |  |  | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |
| 3.3.5 | Basic Multiplication Facts |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |
| 3.3.6 | Patterns in the Multiplication Table |  |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |  |  |  |  |
| 3.3.7 | Learn Multiplication Facts |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |
| 3.4.0 | Understand Division |  |  |  |  |  |  |  |  |  |  |
| 3.4.1 | Equal Groups: Unknown Items Per Group |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.4.2 | Equal Groups: Unknown Number of Groups |  |  | $\checkmark$ |  |  |  |  |  |  |  |
| 3.4.3 | Equal Groups: Tape Diagrams |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| 3.4.4 | Equal Groups: Arrays |  |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| 3.4.5 | Problem Solving with Related Facts |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| 3.5.0 | Use Mixed Operations to Solve Problems |  |  |  |  |  |  |  |  |  |  |
| 3.5.1 | Order of Operations with Parentheses |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| 3.5.2 | Order of Operations without Parentheses |  |  |  |  |  | $\checkmark$ |  |  |  |  |
| 3.5.3 | Associative and Commutative Properties |  |  |  | $\checkmark$ |  |  |  |  |  |  |
| 3.5.4 | Multiples of Ten | $\checkmark$ |  |  |  |  | $\checkmark$ |  |  |  |  |
| 3.5.5 | Tape Diagrams |  |  | $\checkmark$ |  | $\checkmark$ |  |  |  |  |  |
| 3.5.6 | Problem Solving with Mixed Operations |  |  | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  |  |  |  |
| 3.6.0 | Measurement: Time, Volume, and Mass |  |  |  |  |  |  |  |  |  |  |
| 3.6.1 | Tell Time |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| 3.6.2 | Problem Solving with Elapsed Time |  |  |  |  |  |  |  |  | $\checkmark$ |  |
| 3.6.3 | Liquid Volume |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| 3.6.4 | Mass |  |  |  |  |  |  |  | $\checkmark$ |  |  |
| 3.7.0 | Fraction Concepts |  |  |  |  |  |  |  |  |  |  |
| 3.7.1 | Model Equal Parts |  | $\checkmark$ |  |  |  |  | $\checkmark$ |  |  |  |
| 3.7.2 | Use Fraction Bars to Name Fractions |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| 3.7.3 | Use Fraction Rectangles and Circles to Name Fractions |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| 3.7.4 | Find Equivalent Fractions |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| 3.7.5 | Compare Fractions |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| 3.7.6 | Find Fractions on a Number Line |  | $\checkmark$ |  |  |  |  |  |  |  |  |
| 3.7.7 | Compare Fractions on a Number Line |  | $\checkmark$ |  |  |  |  |  |  |  |  |


| Mc Graw HII Education <br> REDBIRD <br> MATHEMATICS |  | Grade 4 -- Pennsylvania Core State Standards for Mathematics |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Numbers \& Operations in Base Ten |  | Numbers \& Operations - Fractions |  |  | Operations and Algebraic Thinking |  |
| No. | Unit/Lesson | CC.2.1.4.B. 1 | CC.2.1.4.B. 2 | CC.2.1.4.C. 1 | CC.2.1.4.C. 2 | CC.2.1.4.C. 3 | CC.2.2.4.A. 1 | CC.2.2.4.A. 2 |
| 4.1.0 | Foundations in Base Ten |  |  |  |  |  |  |  |
| 4.1.1 | Read and Write Multi-Digit Numbers | $\checkmark$ |  |  |  |  |  |  |
| 4.1.2 | Place Value Relationships | $\checkmark$ |  |  |  |  |  |  |
| 4.1.3 | Compare Numbers | $\checkmark$ |  |  |  |  |  |  |
| 4.1.4 | Round Numbers | $\checkmark$ | $\checkmark$ |  |  |  |  |  |
| 4.1.5 | Addition |  | $\checkmark$ |  |  |  |  |  |
| 4.1.6 | Subtraction |  | $\checkmark$ |  |  |  |  |  |
| 4.1.7 | Problem Solving with Addition and Subtraction |  | $\checkmark$ |  |  |  | $\checkmark$ |  |
| 4.2.0 | Multiplication and Division |  |  |  |  |  |  |  |
| 4.2.1 | Multiplication as Comparison |  |  |  |  |  | $\checkmark$ |  |
| 4.2.2 | Tape Diagrams and Multiplicative Comparison |  |  |  |  |  | $\checkmark$ |  |
| 4.2.3 | Find Missing Factors |  |  |  |  |  | $\checkmark$ |  |
| 4.2.4 | Factors and Multiples |  |  |  |  |  |  | $\checkmark$ |
| 4.2.5 | Investigate Remainders |  |  |  |  |  | $\checkmark$ |  |
| 4.3.0 | Extend Multiplication Concepts |  |  |  |  |  |  |  |
| 4.3.1 | Multiply by 10,100 , and 1000 |  | $\checkmark$ |  |  |  |  |  |
| 4.3.2 | Estimate Products |  | $\checkmark$ |  |  |  |  |  |
| 4.3.3 | Use Area Diagram to Multiply by 1-Digit Number |  | $\checkmark$ |  |  |  |  |  |
| 4.3.4 | Use Distributive Property to Multiply by 1-Digit Number |  | $\checkmark$ |  |  |  |  |  |
| 4.3.5 | Use Area Diagram to Multiply by 2-Digit Number |  | $\checkmark$ |  |  |  |  |  |
| 4.3.6 | Use Distributive Property to Multiply by 2-Digit Number |  | $\checkmark$ |  |  |  |  |  |
| 4.3.7 | Problem Solving with Multiplication |  | $\checkmark$ |  |  |  | $\checkmark$ |  |
| 4.4.0 | Extend Division Concepts |  |  |  |  |  |  |  |
| 4.4.1 | Divide 10s, 100 s , and 1000s |  | $\checkmark$ |  |  |  |  |  |
| 4.4.2 | Estimate Quotients |  | $\checkmark$ |  |  |  |  |  |
| 4.4.3 | Area Diagrams in Division |  | $\checkmark$ |  |  |  |  |  |
| 4.4.4 | Distributive Property in Division |  | $\checkmark$ |  |  |  |  |  |
| 4.4.5 | Zeros in Division |  | $\checkmark$ |  |  |  |  |  |
| 4.4.6 | Problem Solving with 1-Digit Divisors |  | $\checkmark$ |  |  |  | $\checkmark$ |  |
| 4.4.7 | Problem Solving with Division and Other Operations |  | $\checkmark$ |  |  |  | $\checkmark$ |  |
| 4.5.0 | Equivalent Fractions |  |  |  |  |  |  |  |
| 4.5.1 | Fractions: Compare Whole Numbers to Make New Numbers |  |  | $\checkmark$ |  |  |  |  |
| 4.5.2 | Compare Fractions with Models |  |  | $\checkmark$ |  |  |  |  |
| 4.5.3 | Compare and Order Fractions |  |  | $\checkmark$ |  |  |  |  |
| 4.5.4 | Multiply to Create Equivalent Fractions |  |  | $\checkmark$ |  |  |  |  |
| 4.5.5 | Divide to Create Equivalent Fractions |  |  | $\checkmark$ |  |  |  |  |
| 4.6.0 | Operations with Fractions |  |  |  |  |  |  |  |
| 4.6.1 | Add Unit Fractions |  |  |  | $\checkmark$ |  |  |  |
| 4.6.2 | Add Fractions |  |  |  | $\checkmark$ |  |  |  |
| 4.6.3 | Subtract Fractions |  |  |  | $\checkmark$ |  |  |  |
| 4.6.4 | Mixed Numbers |  |  |  | $\checkmark$ |  |  |  |
| 4.6.5 | Improper Fractions |  |  |  | $\checkmark$ |  |  |  |
| 4.6.6 | Problem Solving with Fractions with Like Denominators |  |  |  | $\checkmark$ |  |  |  |
| 4.6.7 | Multiples of Unit Fractions |  |  |  | $\checkmark$ |  |  |  |
| 4.6.8 | Multiply a Fraction by a Whole Number |  |  |  | $\checkmark$ |  |  |  |
| 4.6.9 | Problem Solving with Fractions and Mixed Operations |  |  |  | $\checkmark$ |  |  |  |
| 4.7.0 | Decimal Fraction Concepts |  |  |  |  |  |  |  |
| 4.7.1 | Decimal Fractions |  |  | $\checkmark$ |  |  |  |  |
| 4.7.2 | Add Decimal Fractions |  |  |  |  | $\checkmark$ |  |  |
| 4.7.3 | Write Fractions in Decimal Notation |  |  |  |  | $\checkmark$ |  |  |
| 4.7.4 | Compare Decimals in Tenths and Hundredths |  |  |  |  | $\checkmark$ |  |  |



| Mc <br> Gril <br> Education $\mathrm{R} E \mathrm{E}$ MAthematics $\mathrm{B} \\| \mathrm{R} \mathrm{D}$ |  | Grade 6 -- Pennsylvania Core State Standards for Mathematics |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Ratios \& Proportional Relationships | The Number System |  | Expressions and Equations |  |  | Geometry |
| No. | Unit/Lesson | CC.2.1.6.D. 1 | CC.2.1.6.E. 1 | CC.2.1.6.E. 4 | CC.2.2.6.B. 1 | CC.2.2.6.B. 2 | CC.2.2.2.B. 3 | CC.2.3.6.A. 1 |
| 6.1.0 | Rational Numbers and Absolute Value |  |  |  |  |  |  |  |
| 6.1.1 | Explore Integers |  |  | $\checkmark$ |  |  |  |  |
| 6.1.2 | Rational Numbers |  |  | $\checkmark$ |  |  |  |  |
| 6.1.3 | Compare and Order Rational Numbers |  |  | $\checkmark$ |  |  |  |  |
| 6.1.4 | Understand Absolute Value |  |  | $\checkmark$ |  |  |  |  |
| 6.1.5 | Problem Solving with Absolute Value |  |  | $\checkmark$ |  |  |  |  |
| 6.2.0 | Rational Numbers in the Coordinate Plane |  |  |  |  |  |  |  |
| 6.2.1 | Graphs on the Coordinate Plane |  |  | $\checkmark$ |  |  |  |  |
| 6.2.2 | Distance in the Coordinate Plane |  |  | $\checkmark$ |  |  |  |  |
| 6.2.3 | Reflections on the Coordinate Plane |  |  |  |  |  |  |  |
| 6.2.4 | Problem Solving with the Coordinate Plane |  |  | $\checkmark$ |  |  |  | $\checkmark$ |
| 6.3.0 | Division of Fractions |  |  |  |  |  |  |  |
| 6.3.1 | Model Division with Unit Fractions |  | $\checkmark$ |  |  |  |  |  |
| 6.3.2 | Model Fraction Division |  | $\checkmark$ |  |  |  |  |  |
| 6.3.3 | Write Fraction Division Equations |  | $\checkmark$ |  |  |  |  |  |
| 6.3.4 | Fraction Division with Equations |  | $\checkmark$ |  |  |  |  |  |
| 6.3.5 | Create, Model, and Solve Problems with Fraction Division |  | $\checkmark$ |  |  |  |  |  |
| 6.3.6 | Problem Solving with Fractions and Mixed Numbers |  | $\checkmark$ |  |  |  |  |  |
| 6.4.0 | Ratios and Rates |  |  |  |  |  |  |  |
| 6.4.1 | Visualize and Represent Ratios | $\checkmark$ |  |  |  |  |  |  |
| 6.4.2 | Compare Ratios | $\checkmark$ |  |  |  |  |  |  |
| 6.4.3 | Unit Rates | $\checkmark$ |  |  |  |  |  |  |
| 6.4.4 | Graph Rates and Other Ratios | $\checkmark$ |  |  |  |  |  |  |
| 6.4.5 | Convert Measurement Units | $\checkmark$ |  |  |  |  |  |  |
| 6.4.6 | Problem Solving with Unit Rates | $\checkmark$ |  |  |  |  |  |  |
| 6.5.0 | Proportions and Proportional Reasoning |  |  |  |  |  |  |  |
| 6.5.1 | Write Proportions | $\checkmark$ |  |  |  |  |  |  |
| 6.5.2 | Strategies to Solve Proportions | $\checkmark$ |  |  |  |  |  |  |
| 6.5.3 | Percents | $\checkmark$ |  |  |  |  |  |  |
| 6.5.4 | Solve Percent Problems | $\checkmark$ |  |  |  |  |  |  |
| 6.5.5 | Problem Solving with Proportions | $\checkmark$ |  |  |  |  |  |  |
| 6.6.0 | Algebraic Reasoning: Write and Evaluate Expressions |  |  |  |  |  |  |  |
| 6.6.1 | Introduction to Exponents |  |  |  | $\checkmark$ |  |  |  |
| 6.6.2 | Order of Operations |  |  |  | $\checkmark$ |  |  |  |
| 6.6.3 | Numerical Expressions |  |  |  | $\checkmark$ |  |  |  |
| 6.6.4 | Transition to Algebraic Expressions |  |  |  | $\checkmark$ |  |  |  |
| 6.6 .5 | Read and Write Algebraic Expressions Part 1 |  |  |  | $\checkmark$ |  |  |  |
| 6.6 .6 | Read and Write Algebraic Expressions Part 2 |  |  |  | $\checkmark$ |  |  |  |
| 6.6.7 | Equivalent Expressions |  |  |  | $\checkmark$ |  |  |  |
| 6.6.8 | Use Equivalent Expressions to Simplify |  |  |  | $\checkmark$ |  |  |  |
| 6.6 .9 | Problem Solving with Algebraic Expressions |  |  |  | $\checkmark$ |  |  |  |
| 6.7.0 | Equations and Inequalities |  |  |  |  |  |  |  |
| 6.7.1 | Check for Solutions to Equations |  |  |  |  | $\checkmark$ |  |  |
| 6.7.2 | Write 1-Variable Equations |  |  |  |  | $\checkmark$ |  |  |
| 6.7.3 | Solve 1-Variable Equations |  |  |  |  | $\checkmark$ |  |  |
| 6.7.4 | Problem Solving with 1-Variable Equations |  |  |  |  | $\checkmark$ |  |  |
| 6.7.5 | Represent 2-Variable Relationships |  |  |  |  |  | $\checkmark$ |  |
| 6.7.6 | Analyze Relationships Using Tables and Graphs |  |  |  |  |  | $\checkmark$ |  |
| 6.7.7 | Relate Tables and Graphs to Equations |  |  |  |  |  | $\checkmark$ |  |
| 6.7.8 | Write Inequalities |  |  |  |  | $\checkmark$ |  |  |
| 6.7.9 | Solutions of Inequalities |  |  |  |  | $\checkmark$ |  |  |



