

Topics 1 – 15: Aligned with Grade 3 CMT (4<sup>th</sup> Gen)  
Topics 16 – 24: Aligned with Grade 4 CMT (4<sup>th</sup> Gen)

### **TOPIC 1: EXPLORING MATHEMATICS**

- ◆ 1B: Identify alternative forms of expressing 3-digit whole numbers using expanded notation.
- ◆ 2B. Identify fractional parts of regions and sets using pictures and vice versa.
- ◆ 19A. Identify correct information from tables, bar graphs, pictographs and charts.
- ◆ 19B. Create bar graphs and pictographs from data in tables and charts.
- ◆ 22A. Extend or complete patterns, or identify rules using numbers and attributes.
- ◆ 22B. Extend or complete patterns and state rules using numbers and attributes.

### **TOPIC 1 – Extra Practice – Not related to Topic 1 in GWM**

- ◆ 1A. Solve problems involving 1 MORE/LESS or 10 MORE/LESS using 2-digit numbers.
- ◆ 1D. Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.
- ◆ 2C. Label and/or shade fractional parts of regions and sets.
- ◆ 14A. Tell time to the nearest hour, half-hour and quarter hour using analog and digital clocks.
- ◆ 14B. Solve problems involving time, elapsed time (15 minute increments) and calendars.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 2: WORKING WITH ADDITION & SUBTRACTION**

- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 5B. Identify the appropriate operation or number sentence to solve a story problem.
- ◆ 5C. Write story problems from addition or subtraction number sentences.
- ◆ 6A. Add and subtract facts to 18.
- ◆ 9A. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping).
- ◆ 9B. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping) with extraneous information.

**TOPIC 2 – Extra Practice – Not related to Topic 2 in GWM**

- ◆ 7A. Add and subtract 1- and 2-digit whole numbers without regrouping.
- ◆ 7B. Add 1- and 2-digit whole numbers with regrouping.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 3: INVESTIGATING NUMBERS TO 1,000**

- ◆ 1A. Solve problems involving 1 MORE/LESS or 10 MORE/LESS using 2-digit numbers.
- ◆ 1B. Identify alternative forms of expressing 3-digit whole numbers using expanded notation.
- ◆ 1C. Identify alternative forms of expressing 2-digit whole numbers using regrouping.
- ◆ 1D. Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.
- ◆ 4A. Order 2- and 3-digit whole numbers.
- ◆ 4B. Describe magnitude of 2- and 3-digit whole numbers.
- ◆ 4D. Identify points representing 2- and 3-digit whole numbers on a number line and vice versa.
- ◆ 11A. Identify a reasonable estimate to a problem.
- ◆ 19A. Identify correct information from tables, bar graphs, pictographs and charts.

**TOPIC 3 – Extra Practice – Not related to Topic 3 in GWM**

- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 4C. Round 2-digit whole numbers in context.
- ◆ 10A. Identify the best expression to find an estimate.
- ◆ 7A. Add and subtract 1- and 2-digit whole numbers without regrouping.
- ◆ 7B. Add 1- and 2-digit whole numbers with regrouping.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 4: INVESTIGATING LENGTH**

- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 4A. Order 2- and 3-digit whole numbers.
- ◆ 15A. Estimate lengths by comparing.
- ◆ 16A. Measure lengths to the nearest inch or centimeter.
- ◆ 16B. Draw lengths to the nearest inch or centimeter.
- ◆ 16C. Identify appropriate customary or metric units of measure for a given situation (inches, feet, centimeters and meters).
- ◆ 19A. Identify correct information from tables, bar graphs, pictographs and charts.

**TOPIC 4 – Extra Practice – Not related to Topic 4 in GWM**

- ◆ 4B. Describe magnitude of 2- and 3-digit whole numbers.
- ◆ 4D. Identify points representing 2- and 3-digit whole numbers on a number line and vice versa.
- ◆ 15A. Estimate areas by comparing.
- ◆ 19B. Create bar graphs and pictographs from data in tables and charts.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 5: ADDING 2- AND 3-DIGIT6 NUMBERS**

- ◆ 1C. Identify alternative forms of expressing 2-digit whole numbers using regrouping.
- ◆ 5B. Identify the appropriate operation or number sentence to solve a story problem.
- ◆ 5C. Write story problems from addition or subtraction number sentences.
- ◆ 7A. Add and subtract 1- and 2-digit whole numbers without regrouping.
- ◆ 7B. Add 1- and 2-digit whole numbers with regrouping.
- ◆ 11A. Identify a reasonable estimate to a problem

**TOPIC 5 – Extra Practice – Not related to Topic 5 in GWM**

- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 4C. Round 2-digit whole numbers in context.
- ◆ 10A. Identify the best expression to find an estimate.
- ◆ 14A. Tell time to the nearest hour, half-hour and quarter hour using analog and digital clocks.
- ◆ 14B. Solve problems involving time, elapsed time (15 minute increments) and calendars.
- ◆ 22A. Extend or complete patterns, or identify rules using numbers and attributes.
- ◆ 22B. Extend or complete patterns and state rules using numbers and attributes.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 6: ANALYZING SHAPES**

- ◆ 17A. Identify and recognize 2-dimensional geometric shapes and figures, including number of angles and sides of polygons.
- ◆ 17B. Draw 2-dimensional geometric shapes and figures.
- ◆ 22A. Extend or complete patterns, or identify rules using numbers and attributes.
- ◆ 22B. Extend or complete patterns and state rules using numbers and attributes.
- ◆ 24A. Identify objects that are the same or different by one attribute.
- ◆ 24B. Sort objects into 2 groups by a common attribute.

**TOPIC 6 – Extra Practice – Not related to Topic 6 in GWM**

- ◆ 5C. Write story problems from addition or subtraction number sentences.
- ◆ 6A. Add and subtract facts to 18.
- ◆ 9A. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping).
- ◆ 9B. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping) with extraneous information.
- ◆ 16A. Measure lengths to the nearest inch or centimeter.
- ◆ 16B. Draw lengths to the nearest inch or centimeter.
- ◆ 16C. Identify appropriate customary or metric units of measure for a given situation (inches, feet, centimeters and meters).
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 7: UNDERSTANDING FRACTIONS**

- ◆ 2B. Identify fractional parts of regions and sets using pictures and vice versa.
- ◆ 2C. Label and/or shade fractional parts of regions and sets.
- ◆ 15A. Estimate lengths and areas by comparing.

**TOPIC 7 – Extra Practice – Not related to Topic 7 in GWM**

- ◆ 17A. Identify and recognize 2-dimensional geometric shapes and figures, including number of angles and sides of polygons.
- ◆ 17B. Draw 2-dimensional geometric shapes and figures.
- ◆ 21A. Identify correct solutions to problems involving elementary notions of probability.
  - *Try to connect probability concepts to fraction concepts if possible.*
- ◆ 24A. Identify objects that are the same or different by one attribute.
- ◆ 24B. Sort objects into 2 groups by a common attribute.
- ◆ 25A. Solve extended numerical and statistical problems.

City-Wide Math Assessment I (Bristol, CT) – covering Topics 1 - 7

**TOPIC 8: DEVELOPING MULTIPLICATION CONCEPTS**

- ◆ 5A. Relate multiplication facts to rectangular arrays and pictures.
- ◆ 6B. Multiply by 2, 5, and 10.

**TOPIC 8 – Extra Practice – Not related to Topic 8 in GWM**

- ◆ 2B. Identify fractional parts of regions and sets using pictures and vice versa.
- ◆ 2C. Label and/or shade fractional parts of regions and sets.
- ◆ 4C. Round 2-digit whole numbers in context.
- ◆ 6A. Add and subtract facts to 18.
- ◆ 10A. Identify the best expression to find an estimate.
- ◆ 11A. Identify a reasonable estimate to a problem.
- ◆ 15A. Estimate lengths and areas by comparing.
- ◆ 16A. Measure lengths to the nearest inch or centimeter
- ◆ 21A. Identify correct solutions to problems involving elementary notions of probability.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 9: DEVELOPING THE CONCEPT OF DIVISION**

- ◆ 5A. Relate division facts to rectangular arrays and pictures.
- ◆ 6B. Divide by 2, 5 and 10.
- ◆ 22A. Extend or complete patterns, or identify rules using numbers and attributes.
- ◆ 22B. Extend or complete patterns and state rules using numbers and attributes.

**TOPIC 9 – Extra Practice – Not related to Topic 9 in GWM**

- ◆ 14A. Tell time to the nearest hour, half-hour and quarter hour using analog and digital clocks.
- ◆ 14B. Solve problems involving time, elapsed time (15 minute increments) and calendars.
- ◆ 16B. Draw lengths to the nearest inch or centimeter.
- ◆ 24A. Identify objects that are the same or different by one attribute.
- ◆ 24B. Sort objects into 2 groups by a common attribute.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 10: COLLECTING AND ANALYZING DATA**

- ◆ 4D. Identify points representing 2- and 3-digit whole numbers on a number line and vice versa.
- ◆ 19A. Identify correct information from tables, bar graphs, pictographs and charts.
- ◆ 19B. Create bar graphs and pictographs from data in tables and charts.

**TOPIC 10 – Extra Practice – Not related to Topic 10 in GWM**

- ◆ 1A. Solve problems involving 1 MORE/LESS or 10 MORE/LESS using 2-digit numbers.
- ◆ 1B. Identify alternative forms of expressing 3-digit whole numbers using expanded notation.
- ◆ 1C. Identify alternative forms of expressing 2-digit whole numbers using regrouping.
- ◆ 1D. Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.
- ◆ 4A. Order 2- and 3-digit whole numbers.
- ◆ 4B. Describe magnitude of 2- and 3-digit whole numbers.
- ◆ 4D. Identify points representing 2- and 3-digit whole numbers on a number line and vice versa.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 11: INVESTIGATING 4-DIGIT NUMBERS**

- ◆ 1B. Identify alternative forms of expressing 3-digit whole numbers using expanded notation.
- ◆ 1D. Use place value concepts to identify and compare the magnitude and value of digits in 2- and 3-digit numbers.
- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 4A. Order 2- and 3-digit whole numbers.
- ◆ 4B. Describe magnitude of 2- and 3-digit whole numbers.
- ◆ 9A. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping).
- ◆ 9B. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping) with extraneous information.
- ◆ 16C. Identify appropriate customary or metric units of measure for a given situation (inches, feet, centimeters and meters).

**TOPIC 11 – Extra Practice – Not related to Topic 11 in GWM**

- ◆ 5C. Write story problems from addition number sentences.
- ◆ 7A. Add and subtract 1- and 2-digit whole numbers without regrouping.
- ◆ 7B. Add 1- and 2-digit whole numbers with regrouping.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 12: SUBTRACTING 2- AND 3-DIGIT NUMBERS**

- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 5C. Write story problems from subtraction number sentences.
- ◆ 7A. Add and subtract 1- and 2-digit whole numbers without regrouping.
- ◆ 7B. Add 1- and 2-digit whole numbers with regrouping.
- ◆ 9A. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping).
- ◆ 9B. Solve simple story problems involving addition (with/without regrouping) or subtraction (without regrouping) with extraneous information.
- ◆ 11A. Identify a reasonable estimate to a problem.

**TOPIC 12 – Extra Practice – Not related to Topic 12 in GWM**

- ◆ 10A. Identify the best expression to find an estimate.
- ◆ 4C. Round 2-digit whole numbers in context.
- ◆ 1A. Solve problems involving 1 MORE/LESS or 10 MORE/LESS using 2-digit numbers.
- ◆ 1C. Identify alternative forms of expressing 2-digit whole numbers using regrouping.
- ◆ 5B. Identify the appropriate operation or number sentence to solve a story problem.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 13: ANALYZING 3-D SHAPES**

- ◆ 17A. Identify and recognize 2-dimensional geometric shapes and figures, including number of angles and sides of polygons.
- ◆ 17B. Draw 2-dimensional geometric shapes and figures.

**TOPIC 13 – Extra Practice – Not related to Topic 13 in GWM**

- ◆ 5C. Write story problems from addition or subtraction number sentences.
- ◆ 2A. Relate whole numbers to pictorial representations of base ten blocks and vice versa.
- ◆ 2B. Identify fractional parts of regions and sets using pictures and vice versa.
- ◆ 14A. Tell time to the nearest hour, half-hour and quarter hour using analog and digital clocks.
- ◆ 14B. Solve problems involving time, elapsed time (15 minute increments) and calendars.
- ◆ 15A. Estimate lengths and areas by comparing.
- ◆ 16A. Measure lengths to the nearest inch or centimeter.
- ◆ 16B. Draw lengths to the nearest inch or centimeter.
- ◆ 19A. Identify correct information from tables, bar graphs, pictographs and charts.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 14: DEVELOPING MULTIPLICATION AND DIVISION FACTS**

- ◆ 5A. Relate multiplication facts to rectangular arrays and pictures.
- ◆ 6B. Multiply by 2, 5, and 10.

**TOPIC 14 – Extra Practice – Not related to Topic 14 in GWM**

- ◆ 2C. Label and/or shade fractional parts of regions and sets.
- ◆ 5B. Identify the appropriate operation or number sentence to solve a story problem.
- ◆ 15A. Estimate lengths and areas by comparing.
- ◆ 19B. Create bar graphs and pictographs from data in tables and charts.
- ◆ 21A. Identify correct solutions to problems involving elementary notions of probability.
- ◆ 24A. Identify objects that are the same or different by one attribute.
- ◆ 24B. Sort objects into 2 groups by a common attribute.
- ◆ 25A. Solve extended numerical and statistical problems.

**TOPIC 15: WORKING WITH LENGTH & EXPLORING PERIMETER**

- ◆ 16A. Measure lengths to the nearest inch or centimeter.
- ◆ 16B. Draw lengths to the nearest inch or centimeter.
- ◆ 16C. Identify appropriate customary or metric units of measure for a given situation (inches, feet, centimeters and meters).
- ◆ 17A. Identify and recognize 2-dimensional geometric shapes and figures, including number of angles and sides of polygons.
- ◆ 17B. Draw 2-dimensional geometric shapes and figures.

**TOPIC 15 – Extra Practice – Not related to Topic 15 in GWM**

- ◆ 4C. Round 2-digit whole numbers in context.
- ◆ 10A. Identify the best expression to find an estimate.
- ◆ 11A. Identify a reasonable estimate to a problem.
- ◆ 22A. Extend or complete patterns, or identify rules using numbers and attributes.
- ◆ 22B. Extend or complete patterns and state rules using numbers and attributes.
- ◆ 25A. Solve extended numerical and statistical problems.

Bristol City-Wide Assessment III

March: CMT

**Remainder of Grade 3 GWM Aligned to Grade 4 CMT (Topics 16 – 24)****TOPIC 16: USING DATA AND MAKING PREDICTIONS**

- ◆ 4D. Identify points representing 2- and 3-digit whole numbers, fractions (halves, thirds, fourths) and decimals (tenths) on a number line and vice versa.
- ◆ 19A. Identify correct information from tables, bar graphs, pictographs and charts.
- ◆ 19B. Create bar graphs and pictographs from data in tables and charts.
- ◆ 21A. Identify correct solutions to problems involving elementary notions of probability.

**TOPIC 17: EXPLORING FRACTION RELATIONSHIPS**

- ◆ 2A. Relate fractions and decimals to pictorial representations and vice versa.
- ◆ 2B. Relate fractions of regions and sets to pictures and vice versa.
- ◆ 2C. Label and/or shade fractional parts of regions and/or sets.
- ◆ 3A. Relate equivalent fractions to pictorial representations.
- ◆ 4B. Describe magnitude of 2- and 3-digit whole numbers, fractions, mixed numbers and decimals (tenths).
- ◆ 4D. Identify points representing 2- and 3-digit whole numbers, fractions (halves, thirds, fourths) and decimals (tenths) on a number line and vice versa.
- ◆ 6B. Find the missing factor in a division equation where one factor is 2, 3, 4, 5 and 10.
- ◆ 16A. Measure lengths to the nearest inch, centimeter or half-inch.
- ◆ 16B. Draw lengths to the nearest inch, centimeter or half-inch.

**TOPIC 18: WORKING WITH TIME**

- ◆ 14A. Solve problems involving time, elapsed time (minutes and hours) and calendars.
- ◆ 14B. Solve problems involving conversions of measures of time. (Not in Topic 18 GWM)

**TOPIC 19: WORKING WITH MONEY, CAPACITY, & WEIGHT**

- ◆ 19B. Create bar graphs and pictographs from data in tables and charts.
- ◆ 23A. Solve simple ratio problems. [*CMT Obj. 23A: Solve simple one-step algebraic equations involving addition, subtraction and fact families.*]
- ◆ 23A. Solve simple one-step algebraic equations involving fact families.
- ◆ 24B. Sort or classify objects, and draw logical conclusions from data including Venn diagrams and transitive reasoning questions. [*Topic 19 deals with Transitive Reasoning Questions.*]

**TOPIC 20: MORE MULTIPLICATION & DIVISION FACTS**

- ◆ 5A. Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5 and 10).
- ◆ 6A. Find the missing product in a multiplication equation where one factor is 2, 3, 4, 5 or 10.
- ◆ 6B. Find the missing factor in a division equation where one factor is 2, 3, 4, 5 or 10.
- ◆ 9A. Solve one-step story problems involving whole numbers and money amounts. Use 2- and 3-digit numbers in addition and subtraction problems. Use 1- and 2-digit numbers in multiplication problems.
- ◆ 9B. Solve one-step story problems involving addition or subtraction with extraneous information. Use 2- and 3-digit numbers in addition and subtraction problems.
- ◆ 17A. Identify 2-dimensional geometric shapes, including number of angles and sides of polygons.
- ◆ 17B. Identify, describe and draw 2-dimensional geometric shapes and figures.
- ◆ 22A. Identify the missing terms in a pattern, or identify rules for a given pattern using whole numbers and attributes.
- ◆ 22B. Extend or complete patterns and state rules for given patterns using whole numbers and attributes.
- ◆ 23A. Solve simple one-step algebraic equations involving addition and subtraction.

**TOPIC 21: INVESTIGATING AREA & VOLUME**

- ◆ 5A. Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5 and 10).
- ◆ 15A. Estimating lengths and areas by comparing.
- ◆ 17A. Identify 2-dimensional geometric shapes, including number of angles and sides of polygons.
- ◆ 17B. Identify, describe and draw 2-dimensional geometric shapes and figures.

**TOPIC 22: INVESTIGATING DECIMALS**

- ◆ 2A. Relate decimals (tenths) to pictorial representations and vice versa.
- ◆ 2B. Relate fractions (tenths) of regions and sets to pictures and vice versa.
- ◆ 2C. Label and/or shade fractional parts of regions and sets (especially tenths).
- ◆ 4B. Describe magnitude of decimals (tenths).
- ◆ 4D. Identify points representing decimals (tenths) on a number line and vice versa.
- ◆ 7A. Add and subtract 2- and 3-digit whole numbers and money amounts less than \$10 with and without regrouping.
- ◆ 11A. Identify a reasonable estimate to a problem, including estimating change from \$1, \$5 and \$10.

**TOPIC 23: MULTIPLYING 2- AND 2-DIGIT NUMBERS**

- ◆ 1B. Identify alternative forms of expressing whole numbers  $< 1,000$  using expanded notation.
- ◆ 5A. Identify members of multiplication and division fact families from arrays (factors of 2, 3, 4, 5 and 10).
- ◆ 5B. Identify the appropriate operation or number sentence to solve a story problem.
- ◆ 5C. Write a story problem that matches a given addition, subtraction or multiplication sentence. Use 1- and 2- digit numbers for addition and subtraction. Use 1-digit factors for multiplication.
- ◆ 6A. Find the missing product in a multiplication equation where one factor is 2, 3, 4, 5 or 10.
- ◆ 6B. Find the missing factor in a division equation where one factor is 2, 3, 4, 5 or 10.
- ◆ 7B. Multiply and divide 2-digit whole numbers by one digit.
- ◆ 9A. Solve one-step story problems involving whole numbers and money amounts. Use 2- and 3-digit numbers in addition and subtraction problems. Use 1- and 2-digit numbers in multiplication problems.
- ◆ 9B. Solve one-step story problems involving addition or subtraction with extraneous information. Use 2-and 3-digit numbers in addition and subtraction problems.
- ◆ 11A. 11A. Identify a reasonable estimate to a problem, including estimating change from \$1, \$5 and \$10.
- ◆ 24A. Solve logic, counting and classification problems involving the organization of data.

**TOPIC 24: DIVIDING 2-DIGIT NUMBERS**

- ◆ 7B. Multiply and divide 2-digit whole numbers by one digit.
- ◆ 22A: Identify the missing terms in a pattern, or identify rules for a given pattern using whole numbers and attributes.
- ◆ 22B: Extend or complete patterns and state rules for given patterns using whole numbers and attributes.