

E3 (Math for Grade 3)

Course Curriculum (MPSL Academy)

Each Session: 1 hour 15 minutes

(First 10 min review of last week topics/HW, 50 min new topics, 15 min critical thinking Qs)

1. Understand Multiplication and Division

- Use Equal Groups to Multiply
- Use Number Lines to Multiply
- Use Arrays to Multiply
- Multiply in Any Order
- Divide: Size of Equal Groups
- Divide: Number of Equal Groups
- Use Number Lines to Divide

2. Multiplication Facts and Strategies

- Multiply by 2
- Multiply by 5
- Multiply by 10
- Multiply by 0 or 1
- Use the Distributive Property
- Problem Solving: Multiplication

3. More Multiplication Facts and Strategies

- Multiply by 3, 4, 5, 6, 7, 8 and 9
- Practice Multiplication Strategies
- Multiply Three Factors
- More Problem Solving: Multiplication

4. Division Facts and Strategies

- Use Arrays to Divide
- Relate Multiplication and Division
- Divide by 2, 5, or 10
- Divide by 3 or 4
- Divide by 6 or 7
- Divide by 8 or 9
- Divide by 0 or 1
- Practice Division Strategies
- Problem Solving: Division

5. Patterns and Fluency

- Identify Patterns in the Multiplication Table
- Use the Multiplication Table
- Complete Multiplication Tables
- More Problem Solving

6. Relate Area to Multiplication

- Understand Area
- Measure Area Using Standard Units
- Find Area by Multiplying
- Area and the Distributive Property
- Find Areas of More Shapes

7. Round and Estimate Numbers

- Place Value
- Round Numbers Using a Number Line
- Round Numbers Using Place Value
- Estimate Sums
- Estimate Differences

8. Add and Subtract Multi-Digit Numbers

- Identify Addition Properties
- Use Number Lines & Mental Math to Add
- Add Three-Digit or More Numbers
- Use Number Lines & Mental Math to Subtract
- Subtract Three-Digit Numbers
- Relate Addition and Subtraction, Use Partial Sums to Add
- Problem Solving: Addition and Subtraction

9. Multiples and Problem Solving

- Use Number Lines to Multiply by Multiples of 10
- Use Place Value to Multiply by Multiples of 10
- Use Properties to Multiply by Multiples of 10
- Problem Solving: Multiplication and Division
- Problem Solving: All Operations

10. Understand Fractions

- Equal Parts of a Whole
- Understand a Unit Fraction
- Write Fractions of a Whole
- Fractions on a Number Line: Less Than 1
- Fractions on a Number Line: Greater Than 1

11. Understand Fraction Equivalence and Comparison

- Equivalent Fractions on a Number Line
- Relate Fractions and Whole Numbers
- Compare Fractions with the Same Denominator
- Compare Fractions with the Same Numerator
- Compare Fractions on a Number Line
- Compare and Order Fractions

12. Understand Time, Liquid Volume, and Mass

- Time to the Nearest Minute
- Measure Elapsed Time within the Hour
- Measure Elapsed Time Across the Hour
- Problem Solving: Time Interval Problems
- Understand and Estimate Liquid Volume
- Measure Liquid Volume
- Understand and Estimate Mass
- Measure Mass

13. Classify Two-Dimensional Shapes

- Identify Sides and Angles of Quadrilaterals
- Describe Quadrilaterals
- Classify Quadrilaterals
- Draw Quadrilaterals

14. Represent and Interpret Data

- Read and Interpret Picture Graphs
- Make Picture Graphs
- Read and Interpret Bar Graphs
- Make Bar Graphs and
- Make Line Plots
- Measure Lengths: Half Inch
- Measure Lengths: Quarter Inch

15. Find Perimeter and Area

- Understand Perimeter and Find Perimeters of Polygons
- Find Unknown Side Lengths
- Same Perimeter, Different Areas
- Same Area, Different Perimeters

16. ADVANCE TOPICS

- **MONEY – COIN VALUES**
- **COMPARE AND ORDER FRACTIONS**
- **MIXED NUMBER**
- **INTRO TO ROUNDING NUMBERS**
- **INTRO – SQUARES, CUBES**
- **TWO DIGIT QUOTIENTS**
- **BAR & LINE GRAPHS, TALLY GRAPHS, PICTOGRAPHS**
- **CALENDAR PROBLEMS – HOURS, WEEKS, DAYS, MONTHS**
- **INTRO – LONG DIVISION AND DIVISION FACTS**
- **INTRO – PROBABILITY AND OUTCOMES**
- **FRACTIONS IN SIMPLEST FORM**
- **INTRO –MODEL EQUIVALENT FRACTIONS**

NOTE: STUDENTS WILL PARTICIPATE IN VARIOUS STATE LEVEL MATH COMPETITIONS LIKE MATHCOUNTS, MATH OLYMPIAD, MATH KANGAROO, CONTINENTAL MATH LEAGUE AND SO ON. OUR GOAL IS TO BUILD CONFIDENCE IN MATH IN AN EFFICIENT WAY RESULTING IN IMPROVING SCORES IN SCHOOL EXAM & SUCCEED IN NATIONAL MATH COMPETITIONS.