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| **Essential Questions for Math**  **Grade 3** | |
| Module 1:  Place Value/Ordering Whole Numbers/Fractions as Numbers on the Number Line | 1. How can whole numbers be compared and ordered by looking at their place value? 2. How can whole numbers be expressed using place value blocks and standard, word, and expanded form? 3. How can you apply the properties of addition when solving equations? 4. How are addition and subtraction related? 5. How can you represent/locate fractions on a number line? 6. How can you represent equivalent fractions in different ways? |
| Module 2:  Multiplication and Division with Factors 2,3,4,5 and 10. | 1. How are multiplication/repeated addition and division/repeated subtraction related? 2. Why are multiplication and division inverse operations? 3. How can we learn the products of multiplication facts 2,3,4,5 and 10 fluently? 4. How can we learn the quotients of division problems using divisors 2,3,4,5, and 10 with fluency? 5. How can you apply the properties of multiplication when solving equations? |
| Module 3:  Multiplication and Division with Factors 6,7,8 and 9. | 1. How are multiplication/addition and division/subtraction related? 2. Why are multiplication and division inverse operations? 3. What are the products of multiplication facts 2,3,4,5 and 10 (with fluency)? 4. What are the quotients of division problems using divisors 2,3,4,5, and 10 (with fluency)? 5. How can you apply the properties of multiplication when solving equations? |
| Module 4:  Multiplication and Area | 1. How can arrays, square units, and multiplication help to find area? 2. How would you describe the method of finding area in a real-world problem (carpet for a room, etc.)? 3. How can you use the distributive property of multiplication to solve area? |
| Module 5:  Word Problems with Geometry and Measurement | 1. Can you identify the names of plane figures and their defining attributes (angles, sides)? 2. How can you classify figures according to their attributes? 3. How can fractions be represented as equal parts on a number line? 4. How can fractions be represented as equal parts on a plane figure? 5. How can you solve problems involving perimeters of polygons and distinguish between linear/area measures? |
| Module 6:  Problem Solving with Mass, Time, Capacity, Length, and Money | 1. How can you solve problems of estimation/actual measurement of temperature, liquid volume, mass, or length? 2. How can you tell and write time to the nearest minute and solve problems by calculating time intervals? 3. How do you solve problems and make change involving money by using a combination of coins and bills? 4. How can you relate daily activities to likely times (i.e., breakfast at 8 a.m., 12 a.m. or 8 p.m.)? 5. How can you illustrate a weather scene based on a given temperature? |
| Module 7:  Collecting and Displaying Data | 1. How can you represent and interpret data using tally charts, tables, pictographs, line plots, and bar graphs? 2. How can you illustrate and explain collected data using an x and y axis, title, label, key, and scale? 3. How can you translate information from one type of display to another (pictographs/tally charts/bar graphs, tables)? |