Essential Questions for Math
Grade 4

Unit 1

Place Value, Rounding, Fluency, with Addition and Subtraction Algorithms of whole numbers

1. How do I determine the best numerical representation (pictorial, symbolic, objects) for a given situation?
2. Why are estimation and mental math important to determine the reasonableness of an answer?
3. How can strategies be used to solve multi-step word problems?
4. How can we decide when to use an exact answer and when to use an estimate?

Unit 2

Multiplication and Division of up to a 4-Digit Number by up to 1-Digit Number Using Place Value

1. How can patterns, relations, and functions be used as tools to best describe and help explain real life situations?
2. What strategies can be used to find the value of an unknown variable in a number sentence and guide exploration of the relationships between multiplication and division?
3. Are we able to bridge our background knowledge of basic operations and computations to solving word stories and interpret what to do with the remainder in division problems?

Unit 3

Exploring Multiplication

1. What strategies can be used to compare multi-digit whole numbers?
2. How do patterns in our number system help with understanding mathematics?
3. How are number patterns and properties helpful in solving multiplication problems?

Unit 4

Unit Conversions: Addition and Subtraction of Length, Weight, and Capacity

1. How can counting, measuring, or labeling help to make sense of the world around us?
2. How does measurement data represented in tables illustrate units by size?
3. Why is it important to understand relative size?
4. How can strategies be used to solve multi-step word problems?

Unit 5

Order and Operations with Fractions

1. Why express quantities, measurements and fraction number relationships in different ways?
2. How can fraction number relationships be expressed in different ways?
3. How will we use visual models to help us understand fraction number relationships?

Unit 6

Decimal Fractions

1. How can place value be used to create equivalent fractions?
2. How can place value be used to help compare and order decimals?
3. How can a deep understanding of place value help us to understand fractions and decimals?

Unit 7

Addition and Subtraction of Angle Measurement of Planar Figures

1. What important information can be determined from the attributes present in 2D figures?
2. How do geometric relationships help us to solve problems and/or make sense of phenomenon (something that is impressive or extraordinary)?
3. What situations can be analyzed using transformations and symmetries?
4. What strategies and tools can help determine the measurement of unknown angles?