

Essential Questions - K-5 Mathematics

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
K	<p><i>How do we count?</i></p> <p><i>What happens when we combine groups and what happens when we take groups apart?</i></p> <p><i>How do we sort (classify) objects?</i></p> <p><i>What is a shape?</i></p>	<p><i>What do good counters do when counting?</i></p> <p><i>How can we represent what happens when we combine groups and when we take groups apart?</i></p> <p><i>How do we compare objects?</i></p> <p><i>How do we describe and model shapes in our environment?</i></p>	<p><i>How can counting help us compare sets?</i></p> <p><i>What are the different ways we can solve problems and represent our thinking?</i></p> <p><i>How do attributes help us compare and classify objects?</i></p> <p><i>How can shapes be put together to make new shapes?</i></p>	<p><i>How does counting help me solve problems?</i></p> <p><i>How can I solve problems and represent my thinking?</i></p> <p><i>Why do I compare and classify objects?</i></p> <p><i>How are shapes the same and how are they different?</i></p>
1	<p><i>How can I represent my thinking when solving addition/ subtraction problems?</i></p> <p><i>How can I use charts and graphs to represent information (data)?</i></p> <p><i>What are the attributes of shapes?</i></p>	<p><i>What strategies can I use when solving addition/subtraction problems?</i></p> <p><i>What do the digits in a number represent?</i></p> <p><i>How can I interpret the information found in charts and graphs?</i></p> <p><i>How can defining attributes help me create shapes?</i></p>	<p><i>How are addition and subtraction related?</i></p> <p><i>How can I break-apart (decompose) numbers to help me add/subtract?</i></p> <p><i>What does it mean to measure?</i></p> <p><i>How can I ask and answer questions using charts and graphs?</i></p> <p><i>How can defining attributes help me create and partition shapes?</i></p>	<p><i>Why do I need a variety of strategies for problem solving?</i></p> <p><i>Why does my addition or subtraction strategy work?</i></p> <p><i>What are the important things to remember when I measure?</i></p> <p><i>How does a part (share) relate to its whole?</i></p>

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2	<p><i>How can I decompose (break apart) numbers to help me add and subtract?</i></p> <p><i>How can I use facts I know to help me solve facts I don't know?</i></p> <p><i>How can I build three-digit numbers in more than one way?</i></p> <p><i>How can attributes help me identify shapes?</i></p>	<p><i>What strategies can I use when I solve problems and how can I notate my thinking?</i></p> <p><i>How can I use mental strategies to help me add and subtract?</i></p> <p><i>How can I represent three-digit numbers in more than one way?</i></p> <p><i>What are the important things to remember when I measure?</i></p> <p><i>How can attributes help me classify and draw shapes?</i></p>	<p><i>Why do I need a variety of strategies for problem solving?</i></p> <p><i>What strategies help me become fluent with addition/subtraction facts?</i></p> <p><i>How can I decompose (break apart) numbers when adding and subtracting larger numbers?</i></p> <p><i>Why do I need a standard unit of measure?</i></p> <p><i>How does partitioning a shape help me name a part of a whole?</i></p>	<p><i>How can I be strategic and accurate when adding and subtracting?</i></p> <p><i>Why is it important to be fluent with my addition/subtraction facts?</i></p> <p><i>What strategies can I use when solving problems involving larger numbers?</i></p> <p><i>Why are measurement tools important?</i></p> <p><i>How can I partition shapes into equal shares?</i></p>
3	<p><i>What is multiplication/division and how does it relate to addition/subtraction?</i></p> <p><i>What strategies can I use when solving addition/subtraction problems with larger numbers?</i></p> <p><i>What is a fraction?</i></p>	<p><i>How are multiplication and division related?</i></p> <p><i>How can I use notation to represent my strategies for addition and subtraction?</i></p> <p><i>How can I build four-digit numbers in more than one way?</i></p> <p><i>How can a fraction be represented in a variety of ways?</i></p> <p><i>How can shapes belong to multiple categories?</i></p>	<p><i>What strategies help me become fluent with multiplication/ division?</i></p> <p><i>Why do I need a variety of strategies for adding and subtracting larger numbers?</i></p> <p><i>How can I build and represent four-digit numbers in more than one way?</i></p> <p><i>How can models help me compare fractions?</i></p> <p><i>How do I measure attributes of shapes (plane figures)?</i></p>	<p><i>Why does my multiplication/division strategy work?</i></p> <p><i>How can I be strategic and accurate with addition and subtraction strategies?</i></p> <p><i>Why is it important to represent four-digit numbers in a variety of ways?</i></p> <p><i>How can different fractions be equal?</i></p> <p><i>How does area measure relate to addition and multiplication?</i></p>

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4	<p><i>How can I compare numbers using multiplication?</i></p> <p><i>What strategies can I use to solve multi-step problems?</i></p> <p><i>How can I use place value to multiply and divide whole numbers?</i></p> <p><i>How do I know when fractions are equivalent?</i></p> <p><i>How can I classify two-dimensional figures?</i></p>	<p><i>How can I model and represent comparison situations?</i></p> <p><i>How can I use place value and properties of operations to work with whole numbers?</i></p> <p><i>How can I use equivalency to compare fractions?</i></p> <p><i>How can I use visual models to represent operations with fractions?</i></p> <p><i>How is the presence or absence of an attribute important when classifying two-dimensional figures?</i></p>	<p><i>How can I use the relationship of multiplication and division to solve comparison problems?</i></p> <p><i>Why do I need a variety of strategies for operations with whole numbers?</i></p> <p><i>How are fractions and decimals related?</i></p> <p><i>How are whole number operations related to fractions?</i></p> <p><i>How can I use what I know about two-dimensional figures to help me explore angle measurement?</i></p>	<p><i>Why are comparison situations helpful when problem solving?</i></p> <p><i>How can I be strategic and accurate in my operations with whole numbers?</i></p> <p><i>Why is it important to be flexible in how we represent numbers?</i></p> <p><i>How do I notate my thinking when solving problems with fractions?</i></p> <p><i>How can lines and angles help us classify two-dimensional figures?</i></p>
5	<p><i>How does the position of a digit in the number affect its value?</i></p> <p><i>How can I decompose numbers to help me divide?</i></p> <p><i>How can a fraction represent the division of two natural numbers?</i></p> <p><i>How can I use visual models to represent multiplication involving fractions?</i></p> <p><i>What is volume and how do we measure it?</i></p>	<p><i>What patterns occur in our number system?</i></p> <p><i>How do I notate my thinking when decomposing numbers to divide?</i></p> <p><i>How can I use visual models to represent division involving fractions?</i></p> <p><i>How can I apply my understanding of multiplication with whole numbers to multiplication with fractions?</i></p> <p><i>How does volume relate to the operations of multiplication and addition?</i></p> <p><i>How can two-dimensional figures belong to multiple categories?</i></p>	<p><i>How can visual models help support my operations with decimals?</i></p> <p><i>What strategies do I have to divide?</i></p> <p><i>How can I use notation to represent my strategies for division involving fractions?</i></p> <p><i>How can I reason about the product when multiplying fractions?</i></p> <p><i>What strategies can I use to solve addition and subtraction problems involving fractions?</i></p> <p><i>How can I organize two-dimensional figures based on their properties?</i></p>	<p><i>How can I extend my strategies of whole number operations to decimal operations?</i></p> <p><i>How is my strategy related to the numbers within the problem?</i></p> <p><i>How can I be strategic and accurate when adding and subtracting fractions?</i></p>