

Course: Math Grade Level :3

MAIN/GENERAL TOPIC	SUB-TOPIC:	ESSENTIAL QUESTIONS :	WHAT THE STUDENTS WILL KNOW:	WHAT THE STUDENT WILL BE ABLE TO DO:	ASSESSMENTS:	WHEN STUDENT DOES IT:
<i>Develop/Master</i> Review simple addition and subtraction Addition of three or more addends	<i>Develop/Master</i> Addition and subtraction without regrouping <i>Apply/Develop</i> Problem solving <i>Apply/Master</i> Fact families <i>Apply/Master</i> Addition of doubles	When/Why do we add? When/why do we subtract? How are addition and subtraction related? What terms tell us when to add and subtract?	Sum/ <i>Plus (+)</i> Difference/ <i>minus (-)</i> addend all together How many more than? What is left? Problem solving using addition and subtraction Understand associative and commutative properties	Solve simple and subtraction problems Recognize problem solving Language Explain solutions Use manipulatives to solve problems Recognize/use fact families to find solutions Use a variety of strategies to add and subtract three digit numbers with and without regrouping. Solve addition problems with three or more addends Use associative and commutative properties	Simple addition and subtraction quizzes/tests journals Problem of the day Teacher observation correct use of manipulatives in solving problems flash cards	September
<i>Apply/Master</i> Odd/even numbers	Number Sense	What make a number odd? What makes a number even?	Recognize simple patterns of odd numbers. Recognize simple patterns of even numbers	Follow simple patterns using odd and even numbers Skip count by 25's, 50's, 100's to 1,000	Teacher observation Journals	October
<i>Introduce/Develop</i> Place value	<i>Introduce</i> Place value to thousands	How does place value make mathematics easier? When do we use place value?	The value of a number in a specific place value Know how to write a three digit number to the thousands in extended form, standard form, and in words. Understand the place value of the base ten number system(10 ones = 1 ten)	Identify what each place value represents. write a number to the thousands in extended form.	Place value mats using base ten blocks. teacher observation	October
Ordering numbers	<i>Develop</i> Greater than/Less than (> <) Equal to up to the thousands place (=) <i>Not Equal to (≠)</i>	Why do we need to know greater than/ less than/ equal to?	Recognize the correct symbols to show greater than/ less than/ and equal to.	Use correct symbols to show greater than, less than, equal to <i>and not equal to.</i> Write simple number sentences Compare and order numbers to 1.000	Quizzes Exercises	October
<i>Introduce/Apply</i> Estimating	<i>Introduce/Apply</i> Estimate numbers up to 500	Why should we estimate? When do we estimate in our every day lives? How do you know when to estimate?	Estimate (Round) up to 500	Recognize real world situations where estimating is more appropriate Check reasonableness of an answer by using estimation Estimate (round) up to 500	use advertisements and store fliers to estimate teacher observation exercises	October
Money	<i>Apply/Develop</i> Writing and identifying correct value of coins/bills	Why is it important that we know how to count money? Why is it important for us to know how to write the total amount of money?	Correctly identify each coin and its value	Count the correct total of money. Write totals correctly Count and represent combined coins and dollars using symbols	Manipulatives teacher observation school store test exercises flash cards	November

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Time	<i>Master</i> How to tell time. Review time to the hour. Review time to the half hour <i>Develop/Master</i> Time to the minute.	Why do we have to know how to tell time? How do we know what time it is? How can you tell how much time has gone by?	Tell time to the correct minute Tell time to the correct hour Relation of fractions to face of clock	Tell time to the minute and hour using digital and analog Relate unit fractions to the face of the clock (whole = 60 minutes)	Use Judy clocks to show correct time exercises observations done throughout the year journals test	November
Measurement	Standard	Why do we need to know how to measure?	How to use a ruler <i>and yardstick Master</i> How many inches in a foot <i>Master</i> How many feet in a yard <i>Master</i> How many feet in a mile <i>Introduce/Apply</i> Gallons <i>Introduce/Apply</i> Quarts <i>Introduce/Apply</i> Pints <i>Introduce/Apply</i> Cups <i>Introduce/Apply</i> Fahrenheit <i>Introduce/Apply</i> Pounds <i>Introduce/Apply</i> Ounces <i>Introduce/Apply</i> <i>Introduce</i> Mr. Gallon or Big G as a visual representation. <i>Introduce</i> Be able to compare capacity measurements i.e. cups to quarts ... <i>Introduce</i> Recognize equivalency	Measure various objects using ruler or yardstick (whole and half inches, whole feet, and whole yards) Use tools to measure capacity Select tools to show standard and non standard to estimate measurement. Measure objects using ounces and pounds	Teacher observation Charts Journals Test Quiz Exercises	November
Graphing	<i>Apply/Develop</i> Graphing data to show information <i>Master</i> Pictograph and bar graph	How does graphing help us to show information? How are pictographs and bar graphs related?	Recognize and identify the parts of a bar graph and pictograph.	Collect data using observation and surveys, and record appropriately Construct a frequency table to represent a collection of data Identify the parts of pictographs and bar graphs Display data in pictographs and bar graphs State the relationships between pictographs and bar graphs.	student made graphs exercises teacher observation journals	December- June

				Read and interpret data in bar graphs and pictographs		
				Formulate conclusions and make predictions from graphs		

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<i>Introduce/Apply</i> Multiplication (0-12)	<i>Introduce/Apply</i> Multiplication related to skip counting and repeated addition	How can skip counting and addition relate to multiplication? When do we use multiplication in our every day lives?	Product Factors Understand the relationship between repeated addition and multiplication Understand multiplication strategies and "tricks" Commutative property Zero property One as identity element	Students use manipulatives to represent a multiplication problem using repeated addition. Students listen to multiplication audiotape to help them learn multiplication tables. Students create illustrations to represent a given multiplication problem. Use and explain commutative property Use Zero property Use one as the identity element Use a variety of strategies such as area model, tables, patterns, arrays, and doubling to solve problems with factors up to 12 x 12.	Journals Exercises Teacher observation Test Quiz Problem solving Mad minutes Flash cards Computer games	Jan-June
Geometry	<i>Introduce/Apply</i> Symmetry <i>Introduce/Apply</i> Congruent vs. Similar <i>Introduce/Apply</i> Plane figures <i>Introduce/Apply</i> Three dimensional	What is geometry? How do we use geometry every day in our lives?	What symmetry is Know the difference between congruent and similar figures Know the different plane figures and 3-D space figures.	Use manipulatives to determine specific three dimensional shapes. Identify and define the different shapes : circle, triangle, square, rectangle, rhombus, trapezoid, and hexagon. Identify congruent and similar figures Name, describe, compare, and sort three dimensional shapes: cube, cylinder, sphere, prism, and cone.	Teacher observation of manipulatives Journals Quiz Test Exercises	Jan

				Identify the faces on a three dimensional shape as two dimensional shapes. Identify and construct lines of symmetry.		
Division	Single digit division	How does multiplication help us to understand division? When do we use division in our every day lives?	Quotient Divisor Dividend Understand the relationship between multiplication and division Understand division strategies	Demonstrate fluency and apply single digit division facts. Use tables, patterns, halving, and manipulatives to provide meaning for division.	Flash cards Exercises Teacher observation Test Quiz Problem solving Journals Mad minutes Computer games	Feb-June ** Division can also be taught at the same time as multiplication in Jan

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<i>Introduce</i> Fractions- fractional parts of a set		What do the parts of a fraction mean? What is the difference between a numerator and a denominator? When do we use fractions in our every day lives?	What a fraction is Numerator Denominator Equivalent fractions (1/2, 1/3, and 1/4) Whole numbers i.e. $6 \div 6 = 1$	Listen to trade books dealing with fractions. Use pie graph to show fractions. Use recipes to show fractions. Use food to show fractions. Use manipulatives to represent unit fractions (1/2, 1/3, 1/4, 1/5, 1/6, and 1/10) as part of a whole or a set of objects. Compare and order unit fractions (1/2, 1/3, and 1/4) and find their approximate locations on a number line. Explore equivalent fractions	Teacher observation Exercises Quiz Test Journals	Feb-June
Problem Solving	Word problems using math operations	What are the steps in solving a word problem? What are some strategies you can	Clue words needed to solve problems. Different strategies to solve problems	Explore, examine, and make observations about a social problem or mathematical solution.	Teacher observation Journals	Ongoing

		<p>use to solve a word problem?</p> <p>How can clue words be helpful in solving a word problem?</p> <p>What strategies can we use to check that our problem is complete and accurate?</p>	<p>How to write a written solution in their own words.</p> <p>How to select appropriate math operation for a word problem.</p>	<p>Understand that some ways of representing a problem are more helpful than others</p> <p>Interpret information correctly, identify the problem, and generate possible solutions.</p> <p>Act out or model with manipulatives activities involving mathematical content from literature.</p> <p>Formulate problems and solutions from everyday situations.</p> <p>Translate from a picture/diagram to a numeric expression.</p> <p>Represent problem situations in oral, written, concrete, pictorial, and graphical forms.</p> <p>Select and appropriate representation of a problem.</p> <p>Use trial and error to solve problems.</p> <p>Use process of elimination to solve problems.</p> <p>Make pictures/ diagrams of problems.</p> <p>Use physical objects to model problems.</p> <p>Work in collaboration with others to understand a problem situation and solve problems.</p> <p>Make charts and organized lists to solve numerical problems.</p> <p>Analyze problems by identifying relationships relevant vs. irrelevant information and observing patterns.</p> <p>State a problem in own words.</p> <p>Determine what information is</p>	<p>Test</p> <p>Quiz</p> <p>Exercises</p>	
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				<p>needed to solve a problem.</p> <p>Verify results of a problem.</p> <p>Recognize invalid approaches.</p> <p>Determine whether a solution is reasonable in the context of the original problem.</p>		
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