

Managed Curriculum



Fifth Grade Mathematics

2011-2012 School Year



John White, RSD Superintendent

<i>iLEAP/LEAP TEST SPECIFICATIONS</i>	
Number & Number Relations	33%
Geometry	18%
Measurement.....	16%
Data Analysis, Probability, Discrete Math	15%
Algebra	10%
Patterns, Relations, & Functions.....	8%
Number of GLEs for Grade 5.....	33

The 2011-2012 Managed Curriculum

Teaching Mathematics for Meaning and Understanding

Research on teaching and learning document the need for educators to alter present teaching practices in order to close the achievement gap and to support improved student achievement in mathematics. The research message is strong: ***Teach for meaning initially, or risk never getting students beyond a superficial understanding that leaves them unprepared to apply their learning.*** Simply stated, educators can incorporate the following steps to put the research into practice.

- Promote students' discussion of making meaning by posing open-ended questions: *Why do you think that? Can you explain your reasoning? How do you know that?*
- Make explicit connections and incorporate pictures, concrete materials, and role playing as part of instruction so that students have multiple representations of concepts and alternative paths to developing understanding.
- Avoid instruction focused on teaching a single correct approach to arrive at a single correct answer.

The following list of best practices in mathematics is suggested to aid in the teaching and learning process daily.

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| <ul style="list-style-type: none"> • Use manipulative materials • Use cooperative group work • Discuss mathematics • Question and make conjectures • Justify thinking • Write about mathematics | <ul style="list-style-type: none"> • Use a problem-solving approach to instruction • Integrate content • Use calculators and computers • Be a facilitator of learning • Assess learning as an integral part of instruction • Use data to guide/drive instruction |
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Pacing for Content Coverage

There is much mathematics content to review and teach in the course of a year. The expectation is that the pace is set at the beginning of the school year. Students generally adjust to the pace of the teacher. This will ensure that *ALL* of the concepts will be covered. There may be times when it will seem difficult to maintain the pace. But it is important to understand that a slow pace can make it too easy to lose perspective and difficult to relate ideas. If you spend too much time on certain lessons, you will find that your slowest students may have learned more by having gone through content slowly, but the other students may have learned less. The wise teacher strikes a balance, goes quickly enough to keep things interesting but slowly enough to have time for explanations. Make adjustments for students with special needs: individualized lessons, learner center activities, additional homework and/or extended day/week/year opportunities.

Key Concepts for Grade 5

The focus in grade five shifts from whole numbers to positive **fractions**. Students compare fractions using number sense, symbols, and number lines. They recognize, explain, and compute equivalent fractions for common fractions and read, explain, and write numerical representations for positive improper fractions, mixed numbers and decimals from pictorial representations and vice versa. They continue to work with whole numbers and solve multistep problems. Since their beginning formal work with fractions and decimals is so important to future work, it is important to develop their understanding of numbers as representations in various forms with the same value. Use of the **number line** is an inexpensive tool for developing an understanding of the meaning of fractions as well as developing skills with comparing and estimation. Rulers and money are additional tools for developing this understanding and further gives an opening to geometry and decimals. Providing experiences that connects to the real world ensures an interest in understanding the importance of fractions and decimals.

GLEs **not assessed** on iLEAP: #30 but all others are eligible for assessment.

Opening of School Introductory Unit

		<u>Suggested Resources</u>	
	Teachers should use this unit to:		
	<ul style="list-style-type: none">▪ develop classroom culture and establish classroom routines.▪ administer Pre test to determine students' strengths and weaknesses.▪ practice having students talk about and develop reasoning in solving problems.▪ practice with activities using the calculator.▪ practice test taking strategies.▪ practice problem solving strategies.	<ul style="list-style-type: none">▪ Champ Module 4▪ The Teacher's Edition for SFAW provides teacher resources for each chapter. These include:<ul style="list-style-type: none">- Professional Development with Math Background and Teaching Tips- Assessment, Intervention, Test Prep Resources- Home-School Connection- Suggestions for Reaching All Learners for each lesson	

Unit 1: Whole Number Review: Addition and Subtraction

Unit Description

Units 1 and 2 provide the closure to whole number work and provide the opportunity for students to begin the process of becoming computationally fluent in the whole number system by the end of the school year. Computational fluency is the level of skill reached when a person is able to execute an algorithm or procedure efficiently and correctly without assistance. Unit 1 focuses on addition and subtraction. Work with whole numbers should be integrated in each subsequent unit.

Student Understandings

Students solidify their total comprehension of addition and subtraction. They understand numbers, ways of representing numbers, ways of representing numbers, relationships among numbers, patterns in numbers, compute fluently, and make reasonable estimates.

Guiding Questions

Can students...

- *use mental mathematics and estimation strategies in checking the reasonableness of computations?*
- *determine the steps and operations to use to solve a problem without assistance?*
- *work proficiently with whole numbers, the operations of addition and subtraction, and their representations?*
- *solve simple equations and inequalities involving whole numbers?*

GLE's	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
1 8	<p>Students will:</p> <ul style="list-style-type: none"> ▪ understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals. ▪ work proficiently with whole numbers and decimals, the operations of addition and subtraction, and their representations. 	<p>addends difference digits period equivalent decimals expanded form hundredths thousandths million minuend place value standard form subtrahend sum tenths word form</p>	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1 - 5, 12, 13 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 4 -14, 36-48 <p>Technology:</p> <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ MATH eTOOLS@ ▪ TAKE IT TO THE NET@ <p>Everyday Counts</p>

GLE's	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
7 8 9 10 12	<p>Students will:</p> <ul style="list-style-type: none"> ▪ use mental mathematics and estimation strategies in checking the reasonableness of computations. ▪ determine the steps and operations to use to solve a problem without assistance. 	associative property of addition compatible numbers commutative property of addition front-end estimation rounding compensation identity property of addition	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1-15 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 22- 30; p. 44 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
12 13 14	<p>Students will:</p> <ul style="list-style-type: none"> ▪ Solve simple equations and inequalities involving whole numbers. 	addition property of equality equation inequalities inverse operation solution subtraction property of equality variable	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 14, 15 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 108-109, ▪ pp. 696- 703 <p>Technology:</p> <ul style="list-style-type: none"> ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> ▪ First In Math ▪ FASTT Math <p>Everyday Counts</p>
<p><i>Reflection on Teaching</i> Can students...</p> <ul style="list-style-type: none"> ▪ use mental mathematics and estimation strategies in checking the reasonableness of computations? ▪ determine the steps and operations to use to solve a problem without assistance? ▪ work proficiently with whole numbers, the operations of addition and subtraction, and their representations? ▪ solve simple equations and inequalities involving whole numbers? 			

Unit 2: Whole Number Review: Multiplication and Division

Unit Description

This unit provides the closure to whole number work and provides the opportunity for students to begin the process of becoming computationally fluent in the whole number system by the end of the school year. Computational fluency is the level of skill reached when a person is able to execute an algorithm or procedure efficiently and correctly without assistance. Unit 2 focuses on multiplication and division. Work with whole numbers should be integrated in each subsequent unit.

Student Understandings

Students solidify their total comprehension of whole numbers and the operations of multiplication and division. They understand numbers, ways of representing numbers, ways of representing numbers, relationships among numbers, patterns in numbers, can compute fluently, and can make reasonable estimates.

Guiding Questions

Can students...

- determine the steps and operations to use to solve a problem without assistance?
- use mental mathematics and estimation strategies in checking the reasonableness of computations?
- work proficiently with whole numbers, the operations of multiplication and division, and their representations?
- solve simple equations and inequalities involving whole numbers?
- Identify a simple rule for a sequence pattern problem and find missing elements?

GLE's	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
1 8	<p>Students will:</p> <ul style="list-style-type: none"> ▪ work proficiently with whole numbers and decimals, the operations of multiplication and division, and their representations. 	Dividend divisor factors multiples partial product product quotient	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1 – 3, 6 – 9, 11, 13, 16 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 72, 88- 94 ▪ pp. 131-141-155 ▪ pp. 214- 218 ▪ p. 224, pp. 232- 234 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>

GLE's	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
7 9 10 12	<p>Students will:</p> <ul style="list-style-type: none"> ▪ use mental mathematics and estimation strategies in checking the reasonableness of computations. ▪ determine the steps and operations to use to solve a problem without assistance. 	Compatible numbers distributive property identity property of multiplication overestimate rounding underestimate zero property of multiplication	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 4, 5, 8, 10, 12-15 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 68- 86, ▪ pp. 110, 138-141, 180 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math, FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i>
13 14	<p>Students will:</p> <ul style="list-style-type: none"> ▪ solve simple equations and inequalities involving whole numbers. 	Division property of equality equation multiplication property of equality properties of equality solution	<p>LCC Activities: 14, 15</p> <p>SFAW: pp. 108-108,</p> <ul style="list-style-type: none"> ▪ pp. 696- 703 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i>
33	<p>Students will:</p> <ul style="list-style-type: none"> ▪ identify a simple rule for a sequence pattern problem and find missing elements. 	Associative property of multiplication commutative property of multiplication equation, factor inequalities inverse operation product variable	<p>LCC Activities: 16, 17, 18</p> <p>SFAW: pp. 66-69</p> <ul style="list-style-type: none"> ▪ p. 84 & 136 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
<p>Reflection on Teaching</p> <p>Can students...</p> <ul style="list-style-type: none"> ▪ determine the steps and operations to use to solve a problem without assistance? ▪ use mental mathematics and estimation strategies in checking the reasonableness of computations? ▪ work proficiently with whole numbers, the operations of multiplication and division, and their representations? ▪ solve simple equations and inequalities involving whole numbers? ▪ Identify a simple rule for a sequence pattern problem and find missing elements? 			

Unit 4: Number Theory and Equivalent Fractions

Unit Description

The focus of this unit is equivalent fractions, comparison of fractions, and the number theory properties that provide the basis for such equivalencies and comparisons. The work with factors and multiples is critical to work with fractions, but also provides review of multiplication and division facts.

Student Understandings

Students develop an understanding of different representations of fractions such as parts of wholes, parts of collections, locations on number lines, and as divisions of whole numbers. Students recognize and generate equivalent forms of commonly used fractions, mixed numbers, and decimals. Students use models, benchmarks, and equivalent forms to judge the size of fractions.

Guiding Questions

Can students...

- identify fractions using region models, set models, and on a number line?
- use factorization methods to talk about prime, composite, multiples, and factors in number contexts?
- identify or develop equivalent fractions related to a given fraction?
- compare fractions?
- describe mixed numbers and improper fractions and convert between these forms?
- convert between decimals and fractions or mixed numbers?

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
1	<p>Students will:</p> <ul style="list-style-type: none"> ▪ use factorization methods to talk about prime and composite numbers and multiples and factors in number contexts. 	Composite numbers divisibility rules divisible factor factor pair prime factorization prime numbers rectangular array	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 2-6 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 162- 164 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i>
2	<p>Students will:</p> <ul style="list-style-type: none"> ▪ identify fractions using region models, set models, and linear models. 	Benchmark fractions denominator fraction numerator	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1, 7-13 <p>SFAW: pp. 394, 398, 402</p> <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i>

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
2 4	Students will: <ul style="list-style-type: none"> ▪ identify or develop equivalent fractions related to a given fraction. ▪ compare fractions. 	Equivalent fractions	LCC Activities: <ul style="list-style-type: none"> ▪ 1, 7-13, 17-19 SFAW: <ul style="list-style-type: none"> ▪ pp. 410- 412, 418- 420 Technology: <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> Everyday Counts
5 8	Students will: <ul style="list-style-type: none"> ▪ describe mixed numbers and improper fractions and convert between these forms. ▪ convert between decimals and fractions or mixed numbers. ▪ use the whole number system to solve real-life problems. 	Mixed number improper fractions tenths hundredths thousandths	LCC Activities: 12 -16 SFAW: <ul style="list-style-type: none"> ▪ pp. 400 – 406; 426-438 Technology: <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> Everyday Counts
<p><u>Reflection on Teaching</u></p> <p>Can students...</p> <ul style="list-style-type: none"> ▪ identify fractions using region models, set models, and on a number line? ▪ use factorization methods to talk about prime, composite, multiples, and factors in number contexts? ▪ identify or develop equivalent fractions related to a given fraction? ▪ compare fractions? ▪ describe mixed numbers and improper fractions and convert between these forms? ▪ convert between decimals and fractions or mixed numbers? 			

Unit 7: Addition and Subtraction of Fractions

Unit Description This unit focuses on adding and subtracting fractions with common denominators and on writing equations to model problems involving fractions.

Student Understandings

Students will use addition and subtraction of fractions to solve real life problems and will determine if their answers make sense and are reasonable.

Guiding Questions

Can students...

- add or subtract two fractions with a common denominator?
- check to see if two different answers for a fraction operation problem are equivalent?
- work with equivalent fractions to see if they represent the same amount?
- write fraction equations and inequalities then represent the answer to them on a number line?

GLE's	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
2 5 4	<p>Students will:</p> <ul style="list-style-type: none"> ▪ check to see if two different answers for a fraction operation problem are equivalent. ▪ work with equivalent fractions to see if they represent the same amount. 	equivalent fractions	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1, 2, 3, 6, 11 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 410- 412, 418- 426 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
3 6 9	<p>Students will:</p> <ul style="list-style-type: none"> ▪ add or subtract two fractions with a common denominator. ▪ add or subtract two fractions with unlike denominators. 	common denominator common factor denominator equivalent fractions greatest common factor (gcf) least common multiple (lcm) multiple numerator simplest form	<p>LCC Activities: 3 - 10</p> <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 414-416; 460-466; 472-478 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math, FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
3 6	<p>Students will:</p> <ul style="list-style-type: none"> add or subtract two fractions with unlike denominators. 	<p>divisible least common denominator (lcd) mixed number multiple</p>	<p>LCC Activities:</p> <ul style="list-style-type: none"> 1, 3 - 10 <p>SFAW:</p> <ul style="list-style-type: none"> pp. 462- 464, 466, 504 <p>Technology:</p> <ul style="list-style-type: none"> First In Math FASTT Math <i>MATH eTOOLS@</i> <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
13 14 33	<p>Students will:</p> <ul style="list-style-type: none"> write fraction equations and inequalities then represent the answer on a number line. 	<p>variable</p>	<p>LCC Activities:</p> <ul style="list-style-type: none"> 11, 10 <p>SFAW:</p> <ul style="list-style-type: none"> pp. 404- 406, 438 <p>Technology:</p> <ul style="list-style-type: none"> First In Math FASTT Math <i>MATH eTOOLS@</i> <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
<p><i>Reflection on Teaching</i> Can students...</p> <ul style="list-style-type: none"> add or subtract two fractions with a common denominator? check to see if two different answers for a fraction operation problem are equivalent? work with equivalent fractions to see if they represent the same amount? write fraction equations and inequalities then represent the answer to them on a number line? 			

Unit 5: Properties in Geometry

Unit Description

This unit focuses on geometric concepts involving plane figures, and includes the concepts of transformations, rotational symmetry, angle measurement, and coordinate graphing.

Student Understandings

Students can analyze characteristics and properties of polygons and circles. They can apply transformations, symmetry, and spatial reasoning to solve problems.

Guiding Questions

Can students...

- classify and describe the properties of circles and polygons?
- recognize motions in a plane (reflections, rotations, translations) and use the appropriate language to discuss these motions?
- recognize and discuss line and rotational symmetry in figures?
- measure and identify types of angles?
- identify and plot points on a coordinate grid?

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities	
21 24	<p>Students will:</p> <ul style="list-style-type: none"> ▪ measure and identify types of angles. ▪ classify and describe the properties of circles and polygons. ▪ identify important geometric terms relating to lines, parts of a line, angles, and planes. ▪ identify and classify triangles. ▪ identify and classify quadrilaterals. 	acute angle ray sides straight angle pentagon right angle triangle vertex angle central angle chord circle decagon diameter exterior hexagon interior	intersecting lines line line segment midpoint nonagon obtuse angle parallel lines perpendicular lines plane polygon quadrilateral octagon radius	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1- 10, 11, 14, 16 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 328–346; 356, 372 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
25 27	<p>Students will:</p> <ul style="list-style-type: none"> ▪ recognize motions in a plane (reflections, rotations, translations) and use the appropriate language to discuss these motions. 	reflection(flip) rotation (turn) transformations translation (slide) parallelogram rectangle rhombus square trapezoid	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 12, 13 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 360, 364 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
25	<p>Students will:</p> <ul style="list-style-type: none"> ▪ recognize motions in a plane (reflections, rotations, translations) and use the appropriate language to discuss these motions. ▪ identify and plot points on a coordinate grid. 	coordinates congruent ordered pair	<p>LCC Activities: 12, 13, 17, 18</p> <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 174, 360, 364 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
26	<p>Students will:</p> <ul style="list-style-type: none"> ▪ recognize and discuss line and rotational symmetry in figures. 	congruent line of symmetry rotational symmetry symmetric figure	<p>LCC Activities: 14, 15, 16</p> <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 368, 370 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
8 16 17 20	Students will: <ul style="list-style-type: none"> ▪ recognize and select appropriate tools and units, and make and interpret measures for contexts involving length, weight/mass, capacity, temperature, and time. 	centimeter elapsed time kilometer meter millimeter	LCC Activities: <ul style="list-style-type: none"> ▪ 1-4, 6-10, 12, 14, 17, 18 SFAW: <ul style="list-style-type: none"> ▪ pp. 531-534; 562; 564 Technology: <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> Everyday Counts
<p><u>Reflection on Teaching:</u> Can students...</p> <ul style="list-style-type: none"> ▪ classify and describe the properties of circles and polygons? ▪ recognize motions in a plane (reflections, rotations, translations) and use the appropriate language to discuss these motions? ▪ recognize and discuss line and rotational symmetry in figures? ▪ measure and identify types of angles? ▪ identify and plot points on a coordinate grid? 			

Unit 6: Measurement

Unit Description

The focus of this unit is on measurement in both the U.S. and metric systems.

Student Understandings

Students understand the measurable attributes of objects and can apply the appropriate techniques and tools to determine and estimate measurement. They can make conversions of units within the same system for U.S. and metric measurements and make comparisons between the two systems.

Guiding Questions

Can students...

- recognize, select appropriate tools and units, and make and interpret measures for contexts involving length, weight/mass, capacity, temperature, and time?
- convert between units of length, weight/mass, capacity, and time measurements within the same systems for U.S. and metric system measurements?
- compare measurements between U.S. and metric systems?
- estimate measurements?

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
15 23	<p>Students will:</p> <ul style="list-style-type: none"> ▪ convert between units of length, weight/mass, capacity, and time measurements within the same systems for U.S. and metric system measurements. 	Celsius decimeter dekameter Fahrenheit gram hectometer kilogram kilometer mass milligram	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 2 - 6, 12 -17, 19-21 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 528- 537 ▪ pp. 568-569 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
19 22 15 23	<p>Students will:</p> <ul style="list-style-type: none"> ▪ convert between units of length, weight/mass, capacity, and time measurements within the same systems for U.S. and metric system measurements. ▪ compare measurements between U.S. and metric systems. 	liter meter milliliter ounce pound ton weight	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 2- 6, 11-14, 16-17, 19-21 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 536, 616, 620, 622 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
19 22	<p>Students will:</p> <ul style="list-style-type: none"> ▪ compare measurements between U.S. and metric systems. 		<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 3, 4, 6, 11, 12, 14 - 17 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 616, 620 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
	<p>Students will:</p> <ul style="list-style-type: none"> ▪ estimate measurements. ▪ use whole number system to solve problems in real-life and in other content areas. 		<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 4- 6, 11, 13, 16, 17 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 616 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
<p>Reflection on Teaching Can students...</p> <ul style="list-style-type: none"> ▪ recognize, select appropriate tools and units, and make and interpret measures for contexts involving length, weight/mass, capacity, temperature, and time? ▪ convert between units of length, weight/mass, capacity, and time measurements within the same systems for U.S. and metric system measurements? ▪ compare measurements between U.S. and metric systems? ▪ estimate measurements? 			

Unit 3: Data, Probability, and the Counting Principle

Unit Description

This unit uses graphical settings to review and practice the operations on whole numbers.

This unit includes a review of chance (probability) from grade 4, especially the use of counting with lists, tables, and tree diagrams to describe a sample space. It also includes the use of fractions to describe the probability of given events.

Student Understandings

Students organize, display, and interpret data. They practice the operations on whole numbers in different graphical representations. They also predict the probability of simple experiments and understand that the measure of the likelihood of an event can be represented by a number from 0 to 1.

Guiding Questions

Can students...

- work proficiently with whole numbers and their operations in graphical settings?
- organize, display and interpret data?
- identify and/or create equivalent ratios?
- enumerate the possible outcomes for events involving number cubes, spinners, and coins?
- identify the outcomes of an experiment?
- represent the probability associated with an event as a common fraction?

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
7 8 28 29 30 31	Students will: <ul style="list-style-type: none"> ▪ work proficiently with whole numbers and their operations in graphical settings. ▪ organize, display, and interpret data. 	axis circle graph data interval line graph line plot median mode survey pictograph range sample scale stem-and-leaf plot bar graph double bar graph frequency table mean (average) trend	LCC Activities: 1- 9 SFAW: <ul style="list-style-type: none"> ▪ pp. 260-266, 270, 276, 282-292 Technology: <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> Everyday Counts

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
2 11	Students will: <ul style="list-style-type: none"> ▪ identify and/or create equivalent ratios. ▪ enumerate the possible outcomes for events involving number cubes, spinners, and coins. 	equal ratios proportion ratio terms outcome	LCC Activities: 10, 11, 12, 13 SFAW: <ul style="list-style-type: none"> ▪ pp. 646, 648, 652 Technology: <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> Everyday Counts
32 33	Students will: <ul style="list-style-type: none"> ▪ identify the outcomes of an experiment. ▪ represent the probability associated with an event as a common fraction. 	certain event equally likely event impossible event outcome probability sample space tree diagram	LCC Activities: <ul style="list-style-type: none"> ▪ 14 - 19 SFAW: <ul style="list-style-type: none"> ▪ pp. 296, 300, 302 Technology: <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> Everyday Counts
<p>Reflection on Teaching</p> <p>Can students...</p> <ul style="list-style-type: none"> ▪ work proficiently with whole numbers and their operations in graphical settings? ▪ organize, display and interpret data? ▪ identify and/or create equivalent ratios? ▪ enumerate the possible outcomes for events involving number cubes, spinners, and coins? ▪ identify the outcomes of an experiment? ▪ represent the probability associated with an event as a common fraction? 			

iLEAP Practice and Preparation

GLE's	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
	<p>Students will:</p> <ul style="list-style-type: none">▪ review concepts and skills as indicated by data collected from Benchmark Assessments.▪ review and practice problem solving skills and strategies to solve real-life problems.▪ review and practice test taking strategies.		<p>Select review activities based upon the skills identifies from Benchmark Assessments.</p> <p>Technology:</p> <ul style="list-style-type: none">▪ First In Math▪ FASTT Math▪ MATH eTOOLS@▪ TAKE IT TO THE NET@

Unit 8: Measuring and Algebra

Unit Description

The focus of the unit is measurement — finding the area and perimeter of rectangular objects and converting units within a system. There is also an emphasis on writing and solving equations and looking for patterns.

Student Understandings

Students develop, understand, and use formulas for perimeter and area and perform measurement conversions within a system.

Guiding Questions

Can students...

- find the area and perimeter of rectangles?
- find the unknown's value in simple measurement formula situations for area and perimeter?
- use formulas or simple ratios to convert between measures in the same system?
- write number sentence stories and rules associated with patterns or measurement contexts?

GLEs	Teaching Objectives	Vocabulary		Suggested Resources and LCC Activities
24 15 16	<p>Students will:</p> <ul style="list-style-type: none"> ▪ describe the number of faces, edges, and vertices for a polyhedron and use features to identify polyhedra and other solids. ▪ use a formula to find the surface area of rectangular prisms. 	cone congruent cylinder edge face net polyhedron	prism pyramid solid figure sphere surface area vertex	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 2, 6, 10, 11 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 592- 598, 602 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
15 16	<p>Students will:</p> <ul style="list-style-type: none"> ▪ use cubes and a formula to find the volume of rectangular prisms. ▪ change among the customary units of capacity, add, and subtract customary units of capacity. 	capacity cubic unit cup fluid ounce gallon pint quart tablespoon teaspoon volume		<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 2, 6, 10, 11 <p>SFAW: pp. 610- 614</p> <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>

GLEs	Teaching Objectives	Vocabulary	Suggested Resources and LCC Activities
15 16	<p>Students will:</p> <ul style="list-style-type: none"> ▪ find the area and perimeter of rectangles. ▪ find the unknown value in simple measurement formula situations for area and perimeter. 	<p>area base circumference diameter formula height perimeter pi radius</p>	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 2, 6, 10, 11 <p>SFAW: pp. 540, 548 - 554</p> <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
11 13	<p>Students will:</p> <ul style="list-style-type: none"> ▪ use formulas or simple ratios to convert between measures in the same system. 	<p>centimeter decimeter dekameter hectometer kilometer meter millimeter</p>	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1, 5, 9, 10, 13, 14, 16 <p>SFAW:</p> <ul style="list-style-type: none"> ▪ pp. 536, 562, 568 <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i> <p>Everyday Counts</p>
7 8 13	<p>Students will:</p> <ul style="list-style-type: none"> ▪ write number sentence stories and rules associated with patterns or measurement contexts. 	<p>variable</p>	<p>LCC Activities:</p> <ul style="list-style-type: none"> ▪ 1, 3- 5, 9, 12-14, 16 <p>SFAW: pp. 704, 706</p> <p>Technology:</p> <ul style="list-style-type: none"> ▪ First In Math ▪ FASTT Math ▪ <i>MATH eTOOLS@</i> ▪ <i>TAKE IT TO THE NET@</i>
<p>Reflection on Teaching</p> <p><i>Can students...</i></p> <ul style="list-style-type: none"> ▪ find the area and perimeter of rectangles? ▪ find the unknown's value in simple measurement formula situations for area and perimeter? ▪ use formulas or simple ratios to convert between measures in the same system? ▪ write number sentence stories and rules associated with patterns or measurement contexts? 			