Michigan District Lutheran School Curriculum *SCOPE & SEQUENCE*

Grade Level: 4	**Curricular Area: Mathematics**		
Unit 1: **Number and Operations**	**Unit 2:** **Measurement**	**Unit 3:** **Geometry**	**Unit 4:** **Data and Probability**
1A **Understand and use number notation and place value**	**2A** **Measure using common tools and appropriate units**	**3A** **Understand perpendicular, parallel, and intersecting lines**	**4A** **Represent and solve problems for given data**
1B **Add and subtract whole numbers**	**2B** **Convert measurement units**	**3B** **Identify basic geometric shapes and their components, and solve problems**	
1C **Multiply and divide whole numbers**	**2C** **Use perimeter and area formulas**	**3C** **Recognize symmetry and transformations**	
1D **Read, interpret and compare decimal fractions**	**2D** **Understand right angles**		
1E **Understand fractions**	**2E** **Solve problems**		
1F **Add and subtract fractions**			
1G **Multiply fractions by whole numbers**			

1H **Add and subtract decimal fractions**			
1I **Multiply and divide decimal fractions**			
1J **Estimate**			

Michigan District Lutheran School Curriculum *OUTCOMES*

Curricular Area: Mathematics Grade 4 – Number and Operations

Outcome 1A: Understand and use number notation and place value.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.ME.04.01 Read and write numbers to 1,000,000; relate them to the quantities they represent; compare and order. N.ME.04.02 Compose and decompose numbers using place value to 1,000,000's, e.g., 25,068 is 2 ten thousands, 5 thousands, 0 hundreds, 6 tens, and 8 ones. N.ME.04.03 Understand the magnitude of numbers up to 1,000,000; recognize the place values of numbers and the relationship of each place value to the place to its right, e.g., 1,000 is 10 hundreds. N.ME.04.04 Find all factors of any whole number through 50, list factor pairs, and determine if a one-digit number is a factor of a given whole number.* N.ME.04.05 List the first ten multiples of a given one-digit whole number; determine if a whole number is a multiple of a given one-digit whole number.* N.MR.04.06 Know that some numbers including 2, 3, 5, 7, and 11 have exactly two factors (1 and the number itself) and are called prime numbers. N.MR.04.07 Use factors and multiples to compose	IV.1.1. Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals. IV.1.3. Develop an understanding of the properties of numbers (e.g., order) and of the properties of the special numbers 0 and 1. IV.2.1. Represent whole numbers, fractions and decimals using concrete, pictorial and symbolic representations. IV.2.3. Investigate ways numbers are used (e.g., counting, ordering, naming, locating, measuring). IV.3.1. Compare and order numbers using "equal," "less than" or "greater than." IV.3.3. Classify numbers as even or odd and explore concepts of factors and multiples. V.1.3. Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties.	▪ Research the estimated population of the earth's continents. Rank the continents according to their population from greatest to least. Recognize that a vast number of these people do not know Jesus as their Savior. Pray that God may lead us to share His Good News with others. ▪ Research the elevation of four or five of the highest mountains in the world. List the mountains and their rounded-off elevations in order by height. Praise God for the beauty and diversity of His creation.

and decompose whole numbers.*		

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1A: Understand and use number notation and place value. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.1.1. Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals.					
IV.1.3. Develop an understanding of the properties of numbers (e.g., order) and of the properties of the special numbers 0 and 1.					
V.2.1. Represent whole numbers, fractions and decimals using concrete, pictorial and symbolic representations.					
IV.2.3. Investigate ways numbers are used (e.g., counting, ordering, naming, locating, measuring).					
IV.3.1. Compare and order numbers using "equal," "less than" or "greater than."					
IV.3.3. Classify numbers as even or odd and explore concepts of factors and multiples.					
V.1.3. Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties.					

Outcome 1B: Add and subtract whole numbers.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.FL.04.08 Add and subtract whole numbers fluently.	V.1. 2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.	▪ Have the children put their hands behind their backs and close their eyes. Tell them that God has given them all they need to do that day's math problems – in their heads! Use mental calculations to do math (and give no other assignment that day). ▪ While God has blessed us with math abilities to do math in our heads, we can also be thankful for technological aids such as calculators, which make our work faster and easier. Explore the use of calculators and praise God for the blessed life we live.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1B: Add and subtract whole numbers. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**			
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**			
V.1. 2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.				

Outcome 1C: Multiply and divide whole numbers.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.ME.04.09 Multiply two-digit numbers by 2, 3, 4, and 5 using the distributive property, e.g., 21 x 3 = (1 + 20) x 3 = (1 x 3) + (20 x 3) = 3 + 60 = 63. N.FL.04.10 Multiply fluently any whole number by a one-digit number and a three-digit number by a two-digit number; for a two-digit by one-digit multiplication use distributive property to develop meaning for the algorithm. N.FL.04.11 Divide numbers up to four-digits by one-digit numbers and by 10. N.FL.04.12 Find the value of the unknowns in equations such as a ÷ 10 = 25; 125 ÷ b = 25.* N.MR.04.13 Use the relationship between multiplication and division to simplify computations and check results. N.MR.04.14 Solve contextual problems involving whole number multiplication and division.*	IV.1.3. Develop an understanding of the properties of numbers (e.g., order) and of the properties of the special numbers 0 and 1. V.1. 2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation. V.1.3. Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties. V.1.4. Apply operations efficiently and accurately in solving problems. V.2.1. Write and solve open sentences (e.g., 8+ D = 5) and write stories to fit the open sentence. V.2.3. Find replacements for the variable(s) in open sentences.	▪ Have the children put their hands behind their backs and close their eyes. Tell them that God has given them all they need to do that day's math problems – in their heads! Use mental calculations to do math (and give no other assignment that day). ▪ While God has blessed us with math abilities to do math in our heads, we can also be thankful for technological aids such as calculators, which make our work faster and easier. Explore the use of calculators and praise God for the blessed life we live.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1C: Multiply and divide whole numbers. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.1.3. Develop an understanding of the properties of numbers (e.g., order) and of the properties of the special numbers 0 and 1.					
V.1. 2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.					
V.1.3. Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties.					
V.1.4. Apply operations efficiently and accurately in solving problems					
V.2.1. Write and solve open sentences (e.g., 8+ D = 5) and write stories to fit the open sentence.					
V.2.3. Find replacements for the variable(s) in open sentences.					

Outcome 1D: Read, interpret and compare decimal fractions.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.ME.04.15 Read and interpret decimals up to two decimal places; relate to money and place value decomposition. N.ME.04.16 Know that terminating decimals represents fractions whose denominators are 10, 10 x 10, 10 x 10 x 10, etc., e.g., powers of 10. N.ME.04.17 Locate tenths and hundredths on a number line. N.ME.04.18 Read, write, interpret, and compare decimals up to two decimal places. N.MR.04.19 Write tenths and hundredths in decimal and fraction forms, and know the decimal equivalents for halves and fourths.	IV.1.1. Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals. IV.1.2. Investigate and develop an understanding of the base-10place-value system. IV.2.1. Represent whole numbers, fractions and decimals using concrete, pictorial and symbolic representations. IV.2.2. Explore and recognize different representations for the same number and explain why they are the same. IV.3.1. Compare and order numbers using "equal," "less than" or "greater than." V.1.3. Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties.	▪ Arrange to have students run a bake sale at school during the lunch period or immediately after school. Students can make change and count their profits. The profits can then be given to a charity or added to the chapel offerings.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1D: Read, interpret and compare decimals. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.1.1. Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals.					
V.1.2. Investigate and develop an understanding of the base-10place-value system.					
IV.2.1. Represent whole numbers, fractions and decimals using concrete, pictorial and symbolic representations					
IV.2.2. Explore and recognize different representations for the same number and explain why they are the same.					
IV.3.1. Compare and order numbers using “equal,” “less than” or “greater than.”					
V.1.3. Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties.					

Outcome 1E: Understand fractions.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.ME.04.20 Understand fractions as parts of a set of objects. N.MR.04.21 Explain why equivalent fractions are equal, using models such as fraction strips or the number line for fractions with denominators of 12 or less, or equal to 100. N.MR.04.22 Locate fractions with denominators of 12 or less on the number line; include mixed numbers.* N.MR.04.23 Understand the relationships among halves, fourths, and eighths and among thirds, sixths, and twelfths. N.ME.04.24 Know that fractions of the form m/n where m is greater than n, are greater than 1 and are called improper fractions; locate improper fractions on the number line.* N.MR.04.25 Write improper fractions as mixed numbers, and understand that a mixed number represents the number of "wholes" and the part of a whole remaining, e.g., □□ = 1 + □□ = 1 □□ . N.MR.04.26 Compare and order up to three fractions with denominators 2, 4, and 8, and 3, 6, and 12, including improper fractions and mixed numbers.	IV.1.1. Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals. IV.2.1. Represent whole numbers, fractions and decimals using concrete, pictorial and symbolic representations. IV.2.2. Explore and recognize different representations for the same number and explain why they are the same. IV.3.1. Compare and order numbers using "equal," "less than" or "greater than." IV.3.2. Use part-whole relationships to explore numbers, develop number concepts and understand computation.	▪ Provide each student with a banana, a plastic knife, and a clean surface on which to work. Bananas can be divided easily into fractions. The students can show different fractions then order the fractions. An interesting side point to conclude this lesson is to have each student put a slice of banana on their tongues and press against the roof of their mouth. The banana is the only fruit that will divide naturally into three parts. You can say that this makes you think of the triune God – Father, Son, and Holy Spirit. But unlike that banana slice, God does not divide into three pieces – he remains one God. Even though we can't understand how God is three *and* one, we can rejoice that he is not as simple as a banana, nor is He as simple as our own understanding. ▪ Relate fractions to tithing. Have students figure 1/10 of various dollar amounts. Have them figure 1/10 of their allowance or the money they received for their last birthday.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1E: Understand fractions. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.1.1. Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals.					
IV.2.1. Represent whole numbers, fractions and decimals using concrete, pictorial and symbolic representations.					
IV.2.2. Explore and recognize different representations for the same number and explain why they are the same.					
IV.3.1. Compare and order numbers using "equal," "less than" or "greater than."					
IV.3.2. Use part-whole relationships to explore numbers, develop number concepts and understand computation.					

Outcome 1F: Add and subtract fractions.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.MR.04.27 Add and subtract fractions less than 1 with denominators through 12 and/or 100, in cases where the denominators are equal or when one denominator is a multiple of the other. N.MR.04.28 Solve contextual problems involving sums and differences for fractions where one denominator is a multiple of the other (denominators 2 through 12, and 100).* N.MR.04.29 Find the value of an unknown in equations such as □□ + x = □□ or □□ - y = □□ .*	V.1. 2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation. V.1.4. Apply operations efficiently and accurately in solving problems. V.2.3. Find replacements for the variable(s) in open sentences.	

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1F: Add and subtract fractions. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
V.1. 2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.					
V.1.4. Apply operations efficiently and accurately in solving problems.					
V.2.3. Find replacements for the variable(s) in open sentences.					

Outcome 1G: Multiply fractions by whole numbers.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.MR.04.30 Multiply fractions by whole numbers, using repeated addition and area or array models.	IV.2.5. Select appropriate numbers and representations in order to solve problems. V.1.1. Use manipulatives to model operations with numbers; develop their own methods of recording operations; and relate their models and recordings to standard symbolic expressions and algorithms.	

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1G: Multiply fractions by whole numbers. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.2.5. Select appropriate numbers and representations in order to solve problems.					
V.1.1. Use manipulatives to model operations with numbers; develop their own methods of recording operations; and relate their models and recordings to standard symbolic expressions and algorithms.					

Outcome 1H: Add and subtract decimal fractions.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.MR.04.31 For problems that use addition and subtraction of decimals through hundredths, represent with mathematical statements and solve.* N.FL.04.32 Add and subtract decimals through hundredths.*	IV.1.4. Apply their understanding of number systems to model and solve problems. V.1.2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation. V.1.4. Apply operations efficiently and accurately in solving problems.	

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1H: Add and subtract decimal fractions. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE **(The italicized indicates the one used)**	**Dates Taught (month/day/initials):**				
IV.1.4. Apply their understanding of number systems to model and solve problems.					
V.1.2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.					
V.1.4. Apply operations efficiently and accurately in solving problems.					

Outcome 1I: Multiply and divide decimal fractions.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.FL.04.33 Multiply and divide decimals up to two decimal places by a one-digit whole number where the result is a terminating decimal, e.g., 0.42 ÷ 3 = 0.14, but not 5 ÷ 3 = 1.6.	V.1.2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.	

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1I: Multiply and divide decimal fractions. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
V.1.2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.					

Outcome 1J: Estimate.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.FL.04.34 Estimate the answers to calculations involving addition, subtraction, or multiplication. N.FL.04.35 Know when approximation is appropriate and use it to check the reasonableness of answers; be familiar with common place-value errors in calculations. N.FL.04.36 Make appropriate estimations and calculations fluently with whole numbers using mental math strategies.	IV.2.4. Develop strategies for estimating quantity and evaluate the reasonableness of their estimates. V.1.2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.	▪ Set up a "store" area with real cans and boxes of food that have prices attached. Let students select four items, estimate the total cost, and use a calculator to check their accuracy. What happens if your estimate is too low? (Not enough money) Thank God for all that He provides us – food, money for purchases, and good health from eating healthy food. ▪ Estimate and find what the result would be if each child in your class gave $.50 each week as a chapel offering. Multiply the amount by the number of children in your class by the number of weeks in the school year. Decide what could be done with that money to help spread God's love to other people. Discuss $0.50/week as a reasonable goal. Is it too high? Too low? Pray that God will give them hearts willing to share with others for the glory of God. ▪ From time to time, set up real-life situations, use math to solve the problem, and briefly comment on what impact our Christian life has on the situation. For example, you a pizza with 32 pieces and you have 7 friends. How many pieces do you and each of your friends get? Why would you share with them in the first place? Read 1 John 4:19. (Don't save or isolate such a verse just for "religion time".)

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1J: Estimate. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 1-Number and Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.2.4. Develop strategies for estimating quantity and evaluate the reasonableness of their estimates.					
V.1.2. Develop and apply the appropriate method of computation from among mental computation, estimation, paper-and-pencil or calculators; explain why they are choosing a method and how they know which operations to perform in a given situation.					

Michigan District Lutheran School Curriculum *OUTCOMES*

Curricular Area: Mathematics Grade 4 - Measurement

Outcome 2A: Measure using common tools and appropriate units.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.UN.04.01 Measure using common tools and select appropriate units of measure. M.PS.04.02 Give answers to a reasonable degree of precision in the context of a given problem. M.UN.04.03 Measure and compare integer temperatures in degrees. M.TE.04.04 Measure surface area of cubes and rectangular prisms by covering and counting area of the faces.	II.3. 1. Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement. II.3. 2. Identify the attribute to be measured and select the appropriate unit of measurement for length, mass (weight), area, perimeter, capacity, time, temperature and money. II.3. 3. Develop strategies for estimating measures and compare the estimates to the results of the measurement; decide if an estimate is "a good estimate." II.3. 4. Explain the meaning of measurements and recognize that the number of units it takes to measure an object is related to the size of the unit.	▪ As part of your outdoor education, have the students devise a way to measure the circumference of a tree and the perimeter of a field without a tape measure. They can do this by using their hands to measure the circumference of the tree and by walking off steps around the field. The length of their hands and step can then be converted to standard units of measurements, and this information can be used to find the circumference and perimeter. ▪ Measure the size of your church building and compare it to the size of the tabernacle, the temple, or Noah's ark.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2A: Measure using common tools and appropriate units. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 2-Measurement** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.3. 1. Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement.					
II.3. 2. Identify the attribute to be measured and select the appropriate unit of measurement for length, mass (weight), area, perimeter, capacity, time, temperature and money.					
II.3. 3. Develop strategies for estimating measures and compare the estimates to the results of the measurement; decide if an estimate is "a good estimate."					
II.3. 4. Explain the meaning of measurements and recognize that the number of units it takes to measure an object is related to the size of the unit					

Outcome 2B: Convert measurement units.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.TE.04.05 Carry out the following conversions from one unit of measure to a larger or smaller unit of measure: meters to centimeters, kilograms to grams, liters to milliliters, hours to minutes, minutes to seconds, years to months, weeks to days, feet to inches, ounces to pounds (using numbers that involve only simple calculations).	II.3. 4. Explain the meaning of measurements and recognize that the number of units it takes to measure an object is related to the size of the unit.	▪ Research length measurements used in the Bible, in ancient Egypt, and in the Roman Empire. Make a chart comparing the ancient measurements to today's standard and metric measurements.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2B: Convert measurement units. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 2-Measurement** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.3. 4. Explain the meaning of measurements and recognize that the number of units it takes to measure an object is related to the size of the unit.					

Outcome 2C: Use perimeter and area formulas.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.TE.04.06 Know and understand the formulas for perimeter and area of a square and a rectangle; calculate the perimeters and areas of these shapes and combinations of these shapes using the formulas. M.TE.04.07 Find one dimension of a rectangle given the other dimension and its perimeter or area. M.TE.04.08 Find the side of a square given its perimeter or area. M.PS.04.09 Solve contextual problems about perimeter and area of squares and rectangles in compound shapes.	II.1 7. Use shape, shape properties and shape relationships to describe the physical world and to solve problems. II.3. 6. Apply measurement to describe the real world and to solve problems.	

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2C: Use perimeter and area formulas. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 2-Measurement** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.1 7. Use shape, shape properties and shape relationships to describe the physical world and to solve problems.					
II.3. 6. Apply measurement to describe the real world and to solve problems.					

Outcome 2D: Understand right angles.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.TE.04.10 Identify right angles and compare angles to right angles.	II.1. 1. Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph. II.1. 2. Describe the attributes of familiar shapes.	

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2D: Understand right angles. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 2-Measurement** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.1. 1. Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph.					
II.1. 2. Describe the attributes of familiar shapes.					

Outcome 2E: Problem solving.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.PS.04.11 Solve contextual problems about surface area.	II.1 7. Use shape, shape properties and shape relationships to describe the physical world and to solve problems. II.3. 6. Apply measurement to describe the real world and to solve problems.	.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2E: Problem Solving. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 2-Measurement** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.1 7. Use shape, shape properties and shape relationships to describe the physical world and to solve problems.					
II.3. 6. Apply measurement to describe the real world and to solve problems.					

Michigan District Lutheran School Curriculum *OUTCOMES*

Curricular Area: Mathematics Grade 4 - Geometry

Outcome 3A: Understand perpendicular, parallel, and intersecting lines.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
G.GS.04.01 Identify and draw perpendicular, parallel, and intersecting lines using a ruler and a tool or object with a square (90º) corner.	II.1.1. Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph. II.1.3. Draw and build familiar shapes. II.1.6. Recognize parallel and perpendicular line segments and figures that have similarity and/or congruence. II.3.1. Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement.	▪ Take your class to the church sanctuary and ask them to find symbols and decorative designs that are symmetrical or congruent.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

3A: Understand perpendicular, parallel, and intersecting lines. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 3-Geometry** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.1.1. Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph.					
II.1.3. Draw and build familiar shapes.					
II.1.6. Recognize parallel and perpendicular line segments and figures that have similarity and/or congruence.					
II.3.1. Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement.					

Outcome 3B: Identify basic geometric shapes and their components, and solve problems.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
G.GS.04.02 Identify basic geometric shapes including isosceles, equilateral, and right triangles, and use their properties to solve problems. G.SR.04.03 Identify and count the faces, edges, and vertices of basic three dimensional geometric solids including cubes, rectangular prisms, and pyramids; describe the shape of their faces.	II.1.1. Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph. II.1.2. Describe the attributes of familiar shapes. II.1.3. Compare, sort and classify familiar shapes.	.

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3B: Identify basic geometric shapes and their components, and solve problems. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 3-Geometry** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.1.1. Recognize and name familiar shapes in one, two and three dimensions such as lines, rectangles and spheres and informally discuss the shape of a graph.					
II.1.2. Describe the attributes of familiar shapes.					
II.1.3. Compare, sort and classify familiar shapes.					

Outcome 3C: Recognize symmetry and transformations.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
G.TR.04.04 Recognize plane figures that have line symmetry. G.TR.04.05 Recognize rigid motion transformations (flips, slides, turns) of a two-dimensional object.	II.1.5. Explore ways to combine, dissect and transform shapes. II.1.6. Recognize parallel and perpendicular line segments and figures that have similarity and/or congruence. II.2.2. Locate and describe objects in terms of their orientation, direction and relative position, including up, down, front, back, N- S- E- W, flipped, turned, translated; recognize symmetrical objects and identify their lines of symmetry. II.2.3. Explore what happens to the size, shape and position of an object after sliding, flipping, turning, enlarging or reducing it. II.2.5. Use concepts of position, direction and orientation to describe the physical world and to solve problems.	▪ Take the students outdoors to enjoy God's beautiful creation. While admiring God's handiwork, have them try to find as many geometrical shapes as possible in nature. They should see shapes in the trees, rocks, clouds, plant leaves, etc.

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3C: Recognize symmetry and transformations. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 3-Geometry** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.1.5. Explore ways to combine, dissect and transform shapes.					
II.1.6. Recognize parallel and perpendicular line segments and figures that have similarity and/or congruence.					
II.2.2. Locate and describe objects in terms of their orientation, direction and relative position, including up, down, front, back, N- S- E- W, flipped, turned, translated; recognize symmetrical objects and identify their lines of symmetry.					
II.2.3. Explore what happens to the size, shape and position of an object after sliding, flipping, turning, enlarging or reducing it.					
II.2.5. Use concepts of position, direction and orientation to describe the physical world and to solve problems.					

Michigan District Lutheran School Curriculum *OUTCOMES*

Curricular Area: Mathematics Grade 4 – Data and Probability

Outcome 4A: Represent and solve problems for given data.

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
D.RE.04.01 Construct tables and bar graphs from given data. D.RE.04.02 Order a given set of data, find the median, and specify the range of values. D.RE.04.03 Solve problems using data presented in tables and bar graphs, e.g., compare data represented in two bar graphs and read bar graphs showing two data sets.	III.1. 1. Collect and explore data through counting, measuring and conducting surveys and experiments. III.1. 2. Organize data using concrete objects, pictures, tallies, tables, charts, diagrams and graphs. III.1. 3. Present data using a variety of appropriate representations and explain the meaning of the data. III.2. 1. Read and explain data they have collected and organized themselves and progress to reading data from other sources. III.2. 2. Describe the shape of the data using informal language. III.2. 3. Draw, explain and justify conclusions, such as trends based on data. III.2. 4. Raise and answer questions about the source, collection, organization and presentation of data, as well as the conclusions drawn from the data; explore biases in the data. III.2. 5. Formulate questions and problems and gather and interpret data to answer those questions. III.3. 3. Formulate and communicate arguments and	▪ Have students keep track of their activities for a 24-hour period. This information can then be organized and charted. Lead a discussion about the stewardship of our time and talents as, motivated by the love of Jesus, we follow His guiding in our Christian lives. ▪ Have students watch a television weather forecast and list all the times the weather forecaster uses numbers in giving data or making predictions. Why are weather forecasters unable to be totally accurate in their predictions? (Too many variables, unexpected changes, God's power reigns supreme.) Thank God for bright sunshine and needed rain. Ask for His help in times of storm and natural disaster. ▪ Tie finding probability to a classroom science project – hatching chicken eggs. Have students do research and make predictions about when the eggs will hatch. Thank God for new life, and ask Him to lead us to respect and preserve life. Thank Him especially for the new life in Christ we have as the Holy Spirit works in out hearts, helping us to live as God's people. (2 Corinthians 5:17) ▪ Use the dates in Genesis 5 to find the mean, median, and range of ages of the early patriarchs. Pray that God will bless and be with us whatever our age and throughout all the days

	conclusions based on data and evaluate their arguments and those of others.	of our lives.

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4A: Represent and solve problems for given data. **Teacher Name: _____** **Grade Level: 4**	**Curricular Area: Mathematics/Unit 4-Data and Probability** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
III.1. 1. Collect and explore data through counting, measuring and conducting surveys and experiments.					
III.1. 2. Organize data using concrete objects, pictures, tallies, tables, charts, diagrams and graphs					
III.1. 3. Present data using a variety of appropriate representations and explain the meaning of the data.					
III.2. 1. Read and explain data they have collected and organized themselves and progress to reading data from other sources.					
III.2. 2. Describe the shape of the data using informal language.					
III.2. 3. Draw, explain and justify conclusions, such as trends based on data.					
III.2. 4. Raise and answer questions about the source, collection, organization and presentation of data, as well as the conclusions drawn from the data; explore biases in the data.					
III.2. 5. Formulate questions and problems and gather and interpret data to answer those questions					
III.3. 3. Formulate and communicate arguments and conclusions based on data and evaluate their arguments and those of others					