Michigan District Lutheran School Curriculum *SCOPE & SEQUENCE*

Grade Level: 1	**Curricular Area: Mathematics**		
Unit 1: **Number & Operations**	**Unit 2:** **Measurements**	**Unit 3:** **Geometry**	**Unit 4:** **Data & Probability**
1A **Count, write, and order whole numbers**	**2A** **Estimate and measure length**	**3A** **Create and describe shapes**	**4A** **Use pictographs**
1B **Explore place value**	**2B** **Tell time**	**3B** **Create and describe patterns involving geometric objects**	
1C **Add and subtract whole numbers**	**2C** **Work with money**		
	2D **Solve problems**		

Michigan District Lutheran School Curriculum *Outcomes*

Curricular Area: Mathematics Grade 1 - Unit 1: Number & Operations

Outcome: 1A: Count, write, and order whole numbers

Grade Level Content Expectations (GLCEs)	**Michigan Benchmarks**	**Teaching the Faith Activities**
ME.01.01 Count to 110 by 1's, 2's, 5's, and 10's, starting from any number in the sequence; count to 500 by 100's and 10's; use ordinals to identify position in a sequence, e.g., 1st, 2nd, 3rd. N.ME.01.02 Read and write numbers to 110 and relate them to the quantities they represent. N.ME.01.03 Order numbers to 110; compare using phrases such as "same as", "more "greater than", "fewer than"; use = symbol. Arrange small sets of numbers in increasing decreasing order, e.g., write the following from smallest to largest: 21, 16, 35, 8. N.ME.01.04 Identify one more than, one less than, 10 more than, and 10 less than for number up to 100. N.ME.01.05 Understand that a number to the right of another number on the number bigger and that a number to the left is smaller.	I.1.1 Recognize, describe and extend numerical and geometric patterns. II.2.1 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. 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-10 place-value system. IV.2.2 Explore and recognize different representations for the same number and explain why they are the same IV 2.3 Investigate and develop an understanding of the base-10 place-value system. IV 3.1 Compare and order numbers using "equal," "less than" or "greater than." VI.2.2 Explore sets and set relationships by sorting and classifying objects.	• Create a bulletin board in the classroom that can be used for eth whole year. It should contain a monthly calendar, symbols to indicate weather conditions, a supply of items to put in plastic bags labeled ones, tens, and hundreds. Beginning on the first day of school. Have a child put an item in the Ones bad and name one blessing from God. Record the numeral and blessing in a side column on the bulletin board. . Also have child put up a symbol to reflect the day's weather condition. • In connection with the calendar activity described in Objective 1, have the child record the daily information (writing the numeral and drawing a picture of a blessing) in his or her journal. • Give each child in a group of five a different number. Have the children compare numbers and then line up in order from smallest to largest number. Start with a small range of numbers from 1-12. Gradually, over a period of time, increase the range of number used. Later, add a time element and have several groups working at the same time. When you are done with this activity, remind the children that God is part of all of life and it also

		suggests a positive attitude towards math. • After learning about Noah and the ark, have each child draw two animals on a paper. Make the outline of the ark on mural paper and have the children bring their animals forward, counting by twos, and place them on the ark. Then compile the pictures into a class book titled "Noah's Numbers" • Use proportional and non-proportional models to model addition and subtraction. • Create real life situation stories, such as a recess scenario. Pose question such as "If tow people are jumping rope and one more ask to jump, how many will be jumping rope? A group can act it out, draw a diagram, or use manipulative to help solve the problem and writ a matching addition or subtraction sentence. • Give all the children the same number of manipulatives. Let them explore and then write in their math journals all the different addition math problem they can that equal the same sum. They may write problems using the commutative and associative properties. (For instance, correct answers for 10 could include 3+7=10, (2+3)+5=10, 2+(3+5)=10, 0+10=10, 10+9=10.) As a group, share and list the answers. Allow children to add to their math journals the new ideas they learned from the discussion. Than God for the ways we can share ideas and help one another learn something new.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1A: Count, write, and order numbers **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 1: Number & Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
I.1.1 Recognize, describe and extend numerical and geometric patterns.					
II.2.1 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.					
IV.1.1 Develop an understanding of whole numbers and read, write and count using whole numbers; investigate basic concepts of fractions and decimals.					
IV1.2 Investigate and develop an understanding of the base-10 place-value system.					
IV 2.3 Investigate and develop an understanding of the base-10 place-value system.					
IV.3.1 Compare and order numbers using “equal,” “less than” or “greater than.”					
VI.2.2 Explore sets and set relationships by sorting and classifying objects.					

Outcome: 1B: Explore place value

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.ME.01.07 Compose and decompose numbers through 30, including using bundles of tens and units, e.g., recognize 24 as 2 tens and 4 ones, 10 and 10 and 4, 20 and 4, and 24 ones.	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-10 place-value system. 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. V .1.3 Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties. V. 2.2 Explore algebraic concepts with manipulatives such as balance scales, tables of input and output, and pictorial representations of problems.	• Create a bulletin board in the classroom that can be used for eth whole year. Title it "Calendar Countdown." It should contain a monthly calendar, symbols to indicate weather conditions, a supply of wooden craft sticks, twist ties, and three plastic bags labeled ones, tens, and hundreds. Beginning on the first day of school. Have a child put an item in the Ones bad and name one blessing from God. Record the numeral and blessing in a side column on the bulletin board. . Also have child put up a symbol to reflect the day's weather condition. • In connection with the calendar activity described in Objective 1, have the child record the daily information (writing the numeral and drawing a picture of a blessing) in his or her journal. • Give each child in a group of five a different number. Have the children compare numbers and then line up in order from smallest to largest number. Start with a small range of numbers from 1-12. Gradually, over a period of time, increase the range of number used. Later, add a time element and have several groups working at the same time. When you are done with this activity, remind the children that God is part of all of life and it also suggests a positive attitude towards math.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

Unit 1B: Explore place value **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 1: Number & 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.1.2 Investigate and develop an understanding of the base-10 place-value system.					
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.					
V 1.3 Explore properties of operations (e.g., commutative and distributive properties) and give examples of how they use those properties.					
V 2.2 Explore algebraic concepts with manipulatives such as balance scales, tables of input and output, and pictorial representations of problems.					

Outcome: 1C: Add and subtract whole numbers

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
N.ME.01.08 List number facts (partners inside of numbers) for 2 through 10, e.g., 8 = 7 + 1 = 6 + 2 = 5 + 3 = 4 + 4; 10 = 8 + 2 = 2 + 8. N.MR.01.09 Compare two or more sets in terms of the difference in number of elements. N.MR.01.10 Model addition and subtraction for numbers through 30 for a given contextual situation using objects or pictures; explain in words; record using numbers and symbols; solve. N.MR.01.11 Understand the inverse relationship between addition and subtraction, e.g., subtraction "undoes" addition: if 3 + 5 = 8, we know that 8 - 3 = 5 and 8 - 5 = 3; recognize that some problems involving combining, "taking away," or comparing can be solved by either operation. N.FL.01.12 Know all the addition facts up to 10 + 10, and solve the related subtraction problems fluently. N.MR.01.13 Apply knowledge of fact families to solve simple open sentences for addition and subtraction, such as: ■ + 2 = 7 and 10 - ■ = 6. N.FL.01.14 Add three one-digit numbers.	IV.3.2 Use part-whole relationships to explore numbers, develop number concepts and understand computation. 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. 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. VI..2.2 Explore sets and set relationships by sorting and classifying objects. VI.2.5 Explore, develop and invent their own algorithms to accomplish a task or to solve numerical problems.	• Use proportional and non-proportional models to model addition and subtraction. • Create real life situation stories, such as a recess scenario. Pose question such as "If tow people are jumping rope and one more ask to jump, how many will be jumping rope? A group can act it out, draw a diagram, or use manipulative to help solve the problem and writ a matching addition or subtraction sentence. • Give all the children the same number of manipulative. Let them explore and then write in their math journals all the different addition math problem they can that equal the same sum. They may write problems using the commutative and associative properties. (For instance, correct answers for 10 could include 3+7=10, (2+3)+5=10, 2+(3+5)=10, 0+10=10, 10+9=10.) As a group, share and list the answers. Allow children to add to their math journals the new ideas they learned from the discussion. Than God for the ways we can share ideas and help one another learn something new. • Have the children work in small groups using a spinner with one-digit numbers on it or a single die. One person in the group is the leader who spins or tosses the die three times. The other children are to add

		up the numbers and write them on a piece of paper. The leaser is to check the answers of group members. Switch leaders with each round of play. • Alphabet Math is a fun way to practice addition. Display a code that assigns monetary value to alphabet letters, or place a number above the letters on your classroom alphabet chart. (The letter A is worth 1 cent, B is 2 cents,…Z is 26 cents.) Children use the code to give values to words. For example, the word fish (f=6, I=9, s=19, h=8) is worth 42 cents. Challenge the children to see what their first and last names are worth and to subtract the differences. Comment on the real worth of each person, sin makes us worthless, but we are so valuable to God that He sent Jesus to die for us to make us His own people. • Have children work in groups. Give each group the newspaper ad from a grocery store. Let the groups make grocery lists of three items, writing down the times, their costs, and the total cost. Thank God for all the people who provide the food we eat (e.g.., farmers who raise it, grocery clerks who sell it, parents who buy and prepare it).

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

1C: Add and subtract whole numbers **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 1: Number & Operations** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.3.2 Use part-whole relationships to explore numbers, develop number concepts and understand computation.					
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.					
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.					
VI.2.2 Explore sets and set relationships by sorting and classifying objects.					
VI.2.5 Explore, develop and invent their own algorithms to accomplish a task or to solve numerical problems.					

Michigan District Lutheran School Curriculum *Outcomes*

Curricular Area: Mathematics Grade 1 – Unit 2: Measurements

Outcome: 2A: Estimate and measure length

Grade Level Content Expectations (GLCEs)	**Michigan Benchmarks**	**Teaching the Faith Activities**
M.UN.01.01 Measure the lengths of objects in non-standard units, e.g., pencil lengths, shoe lengths, to the nearest whole unit. M.UN.01.02 Compare measured lengths using the words shorter, shortest, longer, longest, taller, tallest, etc.	II.3.1 Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement. 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.	• Make a new cloth parament for the classroom altar. First discuss what color it should be depending on the season of the church year. Ask the children for direction on how to go about making this alter cloth. Lead the discussion in the direction of the need to figure out how much cloth to buy. Divide the children into groups, giving each group some sort of measuring tool, such as large paper clips, pencils, or string and have them estimate the length and width of the altar. Re-measure using standard measurements. Talk about why it is important for everyone to use the same unit of measure. Review the story of the disciples being called to follow Jesus. Discuss how we are also called to follow Jesus. Have the children trace around their feet onto construction paper and cut out the shape. Have them measure their feet using centimeters, record the length and then trade with a friend to verify. Make a display of all the feet entitled "Centifeeters Follow Jesus" • Discuss the differences in God's creation and how each object's uniqueness makes it special. Divide the children into groups and provide them with a collection of animal pictures. Have the children brainstorm ways to arrange the animals

		(e.g., By size, height, width, color). Then have the groups arrange their animal pictures according to a specific attribute given by you. Variation: Have one child in the group arrange the objects or pictures and have the others in the group guess what attribute he or she selected. Or have the children arrange themselves in an order (e.g., by age, height, foot length) and have the class guess what attribute they selected. If time permits, read aloud the children's book Over in the Meadow, by Olive A. Wadsworth, which shares the story of 10 meadow animals. • Divide the children into four groups – the Centimeter Celebrities, the Meter Messengers, the Foot Soldiers, and the Inch Worms. Review the standard measurements units and have the groups practice measure objects in the room using their assigned standard. Take a tour of the school, stopping to measure a variety of objects. Have the children discuss which group or groups would be best suited to measure the object. Estimate lengths, widths, and heights of the objects and confirm with rulers. Tell the children they are going on a "Creation Scavenger Hunt." They will be gathering measurements instead of objects. Send them out in groups to locate objects that are 1-, 2- and 3- feet high, objects that are 1-, 2-, 3-feel long and objects that are 1-, 2-, and 3- feet around. Have them brainstorm how to measure objects if a ruler is not practical (e.g., with a foot long sting, a measuring tape). Categorize the found objects as made by God or made by

		people (using materials made by God).

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2A: Estimate and measure length **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 2: Measurements** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
I.3.1 Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement.					
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: Tell time

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.UN.01.03 Tell time on a twelve-hour clock face to the hour and half-hour.	II.3.1 Compare attributes of objects; develop standard units of measurement; and select and use standard tools for measurement. 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.	• Identify some events that are sure to happen and not sure to happen.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2B: Tell time **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 2: Measurements** **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. 3.4 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: Work with money

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.UN.01.04 Identify the different denominations of coins and bills. M.UN.01.05 Match one coin or bill of one denomination to an equivalent set of coins/bills of other denominations, e.g., 1 quarter = 2 dimes and 1 nickel. M.UN.01.06 Tell the amount of money: in cents up to $1, in dollars up to $100. Use the symbols $ and ¢. M.PS.01.07 Add and subtract money in dollars only or in cents only.	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.	• After learning the parable of the Lost Coin (Luke 15:8-10), try this activity with the children working individually or in groups. Explain that you will show a set of coins, and they will need to determine the total value of the coins. Then you will have them close their eyes while you remove one of the coins. The children are to determine the new total and figure out what coin is "lost." After several tries at this, remove more than one coin.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2C: Work with Money **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 2: Measurements** **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.					

Outcome: 2D: Solve problems

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
M.PS.01.08 Solve one-step word problems using addition and subtraction of length, money and time, including "how much more/less", without mixing units.	IV.3.2 Use part-whole relationships to explore numbers, develop number concepts and understand computation.	• Alphabet Math is a fun way to practice addition. Display a code that assigns monetary value to alphabet letters, or place a number above the letters on your classroom alphabet chart. (The letter A is worth 1 cent, B is 2 cents,…Z is 26 cents.) Children use the code to give values to words. For example, the word fish (f=6, I=9, s=19, h=8) is worth 42 cents. Challenge the children to see what their first and last names are worth and to subtract the differences. Comment on the real worth of each person, sin makes us worthless, but we are so valuable to God that He sent Jesus to die for us to make us His own people. • Have children work in groups. Give each group the newspaper ad from a grocery store. Let the groups make grocery lists of three items, writing down the times, their costs, and the total cost. Thank God for all the people who provide the food we eat (e.g.., farmers who raise it, grocery clerks who sell it, parents who buy and prepare it). • Before chapel, have groups of children count their offerings. Put the subtotals of each group on the chalkboard, have the children estimate the total, and then add up the group totals with a calculator. • After learning the parable of the Lost

		Coin (Luke 15:8-10), try this activity with the children working individually or in groups. Explain that you will show a set of coins, and they will need to determine the total value of the coins. Then you will have them close their eyes while you remove one of the coins. The children are to determine the new total and figure out what coin is "lost." After several tries at this, remove more than one coin. • Identify some events that are sure to happen and not sure to happen.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

2D: Solve problems **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 2: Measurements** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
IV.3.2 Use part-whole relationships to explore numbers, develop number concepts and understand computation.					

Michigan District Lutheran School Curriculum *Outcomes*

Curricular Area: Mathematics Grade 1 – Unit 3: Geometry

Outcome: 3A: Create and describe shapes

Grade Level Content Expectations (GLCEs)	**Michigan Benchmarks**	**Teaching the Faith Activities**
G.GS.01.01 Create common two-dimensional and three-dimensional shapes, and describe their physical and geometric attributes, such as color and shape. G.LO.01.02 Describe relative position of objects on a plane and in space, using words such as above, below, behind, in front of.	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 1.4 Draw and build familiar shapes. II 1.5 Explore ways to combine, dissect and transform shapes. II.2.1 Locate and describe objects in terms of their position, including front, back, inside, outside, right, left, over, under, next to, between and locations on the number line, on a coordinate graph and on a map. 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.2.5 Use concepts of position, direction and orientation to describe the physical world and to solve problems	• As messengers of the Good News, we need to be able to communicate clearly. One way to have your students practice communication and become familiar with descriptions of two-dimensional shapes at the same time is to play "The Telephone Game" Provide pattern or attribute blocks or construction paper shapes. Give Player 1 an illustration of a pattern with several two-dimensional shapes arranged on the page. The player must duplicate the pattern using pattern blocks, hiding it from Player 2. Player 2 must then duplicate the pattern by listening to the directions of Player 1. The first time through Player 1 can talk. Repeat the activity with a new pattern and let both partners talk, allowing questions and answers. Have the children decide which method is easier and why. • Provide the children with pictures of a heart, a cross, a butterfly, and a triangle (Trinity). Discuss the meanings of these Christian symbols. Have them decide where to draw a ling on each shape so that both sides of the shape are equal. They can then check their decisions by folding the shape in half. Divide the children into three groups and distribute various sizes of hearts to one group, various sizes of crosses to another and various sized of

		triangles to the last group. In each group, make sure two of the shapes are congruent. Have the children discuss the similarities and the differences of the shapes in their groups. After each group has concluded that two of the shapes are the same size and the rest are alike except for the different sizes, have them share their findings with the class. NOTE: This and many other activities can be developed in cooperative groups or individually in learning centers. You can adapt ideas to your particular situation and needs.

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

3A: Create and describe shapes **Teacher Name: _____** **Grade Level: 1**	**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 1.4 Draw and build familiar shapes.					
II 1.5 Explore ways to combine, dissect and transform shapes.					
II.2.1 Locate and describe objects in terms of their position, including front, back, inside, outside, right, left, over, under, next to, between and locations on the number line, on a coordinate graph and on a map.					
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.2.5 Use concepts of position, direction and orientation to describe the physical world and to solve problems.					

Outcome: 3B: Create and describe patterns involving geometric objects

Grade Level Content Expectations (GLCEs)	Michigan Benchmarks	Teaching the Faith Activities
G.SR.01.03 Create and describe patterns, such as repeating patterns and growing patterns using number, shape, and size. G.SR.01.04 Distinguish between repeating and growing patterns. G.SR.01.05 Predict the next element in a simple repeating pattern. G.SR.01.06 Describe ways to get to the next element in simple repeating patterns.	I.1.1 Recognize, describe and extend numerical and geometric patterns. I.1.2 Represent and record patterns and relationships in a variety of ways including tables, charts and pictures. I.1.4 Explore various types of numeric and geometric patterns (repeating, growing, shrinking). I.1.5 Apply their experiences with patterns to help solve problems and explore new content.	• As messengers of the Good News, we need to be able to communicate clearly. One way to have your students practice communication and become familiar with descriptions of two-dimensional shapes at the same time is to play "The Telephone Game" Provide pattern or attribute blocks or construction paper shapes. Give Player 1 an illustration of a pattern with several two-dimensional shapes arranged on the page. The player must duplicate the pattern using pattern blocks, hiding it from Player 2. Player 2 must then duplicate the pattern by listening to the directions of Player 1. The first time through Player 1 can talk. Repeat the activity with a new pattern and let both partners talk, allowing questions and answers. Have the children decide which method is easier and why. • As the children work on the survey and graphs suggested in Objective 18, encourage them to make predictions about what the results would be if used with a different population. For example, "What do you think our data would show if we asked your parents this question?" • Have the children think about Joseph's coat give to him by his father, Jacob. Draw on or more large coats on mural paper and divide teach coat into several sections. Begin coloring a pattern in one section. Have one child continue your pattern and another child reverse your pattern. Repeat

		this process using other patterns until all children are busy and involved. (Enlist the children's suggestions for patterns.) This procedure can also be done in small groups with smaller pictures of coats after they begin to understand directions. • There are many examples of pattering in God's creating. Provide the children with leaves, seashells, flowers, orange halves, etc., to explore and describe. Also look for patterns in animals such as the zebra and some cats. Take a tour around the church and school to locate and describe other patterns. (Also, are there any patterns in the church windows?)

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

3B: Create and describe patterns involving geometric objects. **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 3: Geometry** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
I.1.1 Recognize, describe and extend numerical and geometric patterns.					
I.1.2 Represent and record patterns and relationships in a variety of ways including tables, charts and pictures.					
I.1.4 Explore various types of numeric and geometric patterns (repeating, growing, shrinking).					
I.1.5 Apply their experiences with patterns to help solve problems and explore new content.					

Michigan District Lutheran School Curriculum *Outcomes*

Curricular Area: Mathematics Grade 1 – Unit 4: Data & Probability

Outcome: 4A: Use pictographs

Grade Level Content Expectations (GLCEs)	**Michigan Benchmarks**	**Teaching the Faith Activities**
D.RE.01.01 Collect and organize data to use in pictographs. D.RE.01.02 Read and interpret pictographs. D.RE.01.03 Make pictographs of given data using both horizontal and vertical forms of graphs; scale should be in units of one and include symbolic representations, e.g., □represents one child.	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.	• Divide the children into groups. Have them select what type of information they would like to find out from the students in other classrooms. Provide suggestions such as favorite Bible verse, favorite parable, favorite spring blessing, etc. the children will need to formulate a single question and list several possible choices of answers. If possible, send each group to another classroom to collect the needed data. Otherwise, create a tally sheet so other teachers can gather and return the information from their own classes. Once all date is collected. Have each group create two graphs- a pictographs and a bar graph. Have the groups report on their results. • As the children work on the survey and graphs suggested in Objective 18, encourage them to make predictions about what the results would be if used with a different population. For example, "What do you think our data would show if we asked your parents this question?"

Michigan District Lutheran School Curriculum *TEACHER ACCOUNTABILITY RECORD*

4A: Use pictographs **Teacher Name: _____** **Grade Level: 1**	**Curricular Area: Mathematics /Unit 4:Data & Probability** **School Year:**				
Michigan Standards, *Benchmark*, or GLCE (The *italicized* indicates the one used)	**Dates Taught (month/day/initials):**				
II.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.					