#### **Archdiocese of Newark Catholic Schools**



#### **Curriculum Mapping**

Curriculum mapping is a process that helps schools and districts/dioceses determine the "agreed-upon" learning for all students. Curriculum mapping was undertaken in the Archdiocese of Newark in order to ensure that a consistent, clearly articulated curriculum infused with Gospel values is being provided to all students in our schools. The curriculum maps for the Catholic schools of the Archdiocese of Newark identify the content to be taught and skills to be mastered at each grade level.

The expertise and experience of the educators within our schools is the main source for determining the content and skills students will be expected to master. The Archdiocesan curriculum maps are developed through a collaborative process which involves individual teacher contributions, small group sessions and larger group meetings. Relevant educational standards, including those proposed by content area experts, the New Jersey Core Curriculum Content Standards, and the Common Core State Standards, are used as a resource in the curriculum mapping process. The resulting consensus maps reflect the collective thinking of classroom teachers based on their observation of student learning and their knowledge of educational practice and research. The Archdiocesan curriculum maps include teacher generated ideas for the infusion of Gospel values and faith connection activities.

While the curriculum maps clearly articulate the expected learning for all students, individual teachers have the flexibility to teach the content and skills in their own manner by:

- utilizing their own particular strengths and teaching style
- addressing the varying learning needs of their students
- determining the order in which the content and skills are presented within a marking period
- including additional content and skills once students have met the learning expectations identified in the curriculum map

Administrators at all levels will maintain the responsibility to ensure that teachers are following the curriculum maps and that appropriate teaching is being conducted. This will be done through a combination of classroom observations, faculty meetings, professional development opportunities and teacher evaluations, as well as by using various measurement tools, including but not limited to in-class and standardized testing. The Archdiocesan curriculum maps will help ensure the academic excellence that is integral to the mission of our Catholic schools and will provide educators and parents with a clear understanding of the learning expectations at each grade level.

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
3.NBT.S1 Represent, order, and compare	Place Value	Write and read numbers in	Student learning will be	Gospel values should be
large numbers (to at least 10,000) using		standard, word and	assessed on a continual	evident in the classroom
various equivalent forms (e.g., expanded notation).		expanded forms.	basis using various types of	environment and referenced
notation).			formal and informal	and reinforced throughout
3.NBT.1 Use place value understanding		Identify place value to	assessments. A list of	the curriculum.
to round whole numbers to the nearest 10		100,000.	possible assessment	Cognel Volum
or 100.		Read, write, compare and	methods is provided below:	Gospel Values Community
2040 11 25 21 22 4		order numbers up to	Test	Compassion
3.OA.9 Identify arithmetic patterns (including patterns in the addition table		100,000.	Quizzes	Faith in God
or multiplication table), and explain them		130,000	Teacher Observation	Forgiveness
using properties of operations. Example:		Identify and complete	Projects	Норе
Observe that 4 times a number is always		number patterns.	Oral Test/Drills	Justice
even, and explain why 4 times a number can be decomposed into two equal			Group Projects	Love
addends.		Round and estimate	Surveys and Graphs	Peace
		numbers up to the nearest hundred thousand	Standardized Test Preps	Respect For Life Service
3.OA.S1 Represent and analyze patterns		(including money).	*	Simplicity
and functions, using words and tables		(metading money).	Center Activities	Truth
(e.g., input-output tables).			Homework	Trutti
		Add and subtract two,	Classwork	
	Addition &	three, and four- digit	Timed Drills	Included in this column are
3.NBT.2 Fluently add and subtract	Subtraction	numbers with and without	Exit Slips	suggestions for making
within 1000 using strategies and		regrouping.	Pre- Test/Post- Test	faith connections within the
algorithms based on place value, properties of operations, and/or the			Online Assessment	Math classroom. These
relationship between addition and		Apply the four properties of	Problem of the Day	suggestions were submitted
subtraction.		addition: (Associative,	Individual Response	by teachers.
		Distributive, Commutative, and Zero Property).	Boards	

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. Example: Observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.		Utilize mental math strategies.  Use basic fact and patterns of zero to add tens, hundreds and thousands mentally.  Estimate sums and differences.  Identify, demonstrate and explain the relationship between addition and subtraction.	Thumbs up/Thumbs down Games Journaling Interactive whiteboard activities Solve and Explain	Create equations for students to solve. The answer should represent an important date on the Church calendar such as, holy days of obligation, saint days, etc.
3.MD.S2 Determine the value of sets of coins and bills and determine if the value is enough to cover the cost of specific items	Money	Add and subtract money amounts.  Make and count change correctly.		Count the money collected each week for the Missions. Compare the amount collected to previous weeks.

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
B.OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a etter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	Problem Solving	Solve addition and subtraction word problems using a four step strategy-Read, Plan, Solve and Check.  Apply problem solving skills to real life situations involving addition, subtraction.  Solve multi-step word problems using addition and subtraction.  Solve problems involving addition and subtraction of money.  Explain and justify the mathematical thinking and procedures used to solve a word problem.		Incorporate Gospel values into word problem scenarios. Example: The third grade class will give 50 cents for the poor on Monday and promised to double the previous day's amount every day for a week. How much money will the third grade have on Friday?

First Trimester: September-Novemb										
Standards	Content	Skills	Assessment	Gospel Values & Faith						
				Connections						
3.OA.1 Interpret products of whole	Multiplication	Represent multiplication								
numbers, e.g., interpret $5 \times 7$ as the total		facts as they connect to		Use the mathematical						
number of objects in 5 groups of 7		repeated addition.		folktale, "One Grain of						
objects each. Example: Describe a		Construct and utilize arrays		Rice" to explore doubling						
context in which a total number of		to model multiplication.		numbers and as a basis for						
objects can be expressed as $5 \times 7$ .		to model multiplication.		discussions about social						
3.OA.3 Use multiplication and division		Demonstrate developing		justice.						
within 100 to solve word problems in		Demonstrate developing								
situations involving equal groups, arrays,		mastery of basic								
and measurement quantities, e.g., by		multiplication facts. (Begins in 1 <sup>st</sup> trimester and continues								
using drawings and equations with a		th 1 trimester and continues throughout the $2^{nd}$ and $3^{rd}$		Use service projects as the						
symbol for the unknown number to		trimesters.)		theme for word problems.						
represent the problem.		titmesters.		Ex: The class has been						
		Identify factors and		collecting Pennies for						
3.OA.7 Fluently multiply and divide		multiples.		Patients, as part of a						
within 100, using strategies such as the		murupies.		service project. The class						
relationship between multiplication and				collected \$127.13 the first						
division (e.g., knowing that $8 \times 5 = 40$ ,				four days. Today is the fifth						
one knows $40 \div 5 = 8$ ) or properties of				day. Job brought in 5						
operations. (By the end of Grade 3,				quarters and 2 dimes.						
students should know from memory all				Grant brought in 8 stacks						
products of two one-digit numbers.)				C						
3.OA.9 Identify arithmetic patterns				of 5 pennies each. Keira						
(including patterns in the addition table		Demonstrate understanding		brought in \$1.50. How						
or multiplication table), and explain them	Math Terms	of math vocabulary.		much did the class collect						
using properties of operations. <i>Example:</i>	(Vocabulary)			at the end of five days?						
Observe that 4 times a number is always	( ) 3 2 2 2 3 7	Use math terms								
even, and explain why 4 times a number		terminology correctly.								
can be decomposed into two equal										
addends.										

Second	Trimester:	<b>December-February</b>
Second	i rimester:	December-rebruary

Standards	Content	Skills	Assessment	Gospel Values & Faith
				Connections
3.OA.7 Fluently multiply and divide	Multiplication/	Demonstrate fluent recall of	Student learning will be	Gospel values should be
within 100, using strategies such as the	Division	products for multiplication	assessed on a continual	evident in the classroom
relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$ ,		facts with 0 through 12 as	basis using various types of	environment and referenced
one knows $40 \div 5 = 8$ ) or properties of		factors. (Mastery of facts	formal and informal	and reinforced throughout
operations. (By the end of Grade 3,		develops throughout the	assessments. A list of	the curriculum.
students should know from memory all		year.)	possible assessment	Cagnal Values
products of two one-digit numbers.)		Show the relationship	methods is provided below:	Gospel Values Community
204541		between multiplication and	Test	Compassion
3.OA.5 Apply properties of operations as strategies to multiply and divide.		division through the use of	Quizzes	Faith in God
strategies to multiply and divide.		fact families.	Teacher Observation	Forgiveness
3.OA.4 Determine the unknown whole			Projects	Норе
number in a multiplication or division		Apply the properties of	Oral Test/Drills	Justice
equation relating three whole numbers.		multiplication and division,	Group Projects	Love
3.OA.2 Interpret whole-number quotients		including the distributive	Surveys and Graphs	Peace
of whole numbers, e.g., interpret 56 ÷ 8		property.		Respect For Life
as the number of objects in each share		Apply myltiplication	Standardized Test Preps	Service
when 56 objects are partitioned equally		Apply multiplication strategies to problems with	Center Activities	Simplicity Truth
into 8 shares, or as a number of shares		or without regrouping.	Homework	Trutti
when 56 objects are partitioned into equal shares of 8 objects each		or without regrouping.	Classwork	
equal shares of 6 objects each		Determine the missing	Timed Drills	Included in this column are
		number in a multiplication	Exit Slips	suggestions for making
		or division equation.	Pre- Test/Post- Test	faith connections within the
		Interpret quotients as the	Online Assessment	Math classroom. These
		number of equal shares or	Problem of the Day	suggestions were submitted
		the number of objects in		by teachers.
		each share.	Individual Response	

**Second Trimester: December-February** 

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
<ul> <li>3.NF.1 Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.</li> <li>3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram. <ul> <li>a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts.</li> <li>Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.</li> <li>b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.</li> </ul> </li> <li>3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. <ul> <li>a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.</li> </ul> </li> </ul>	Fractions	Describe a fraction as part of a whole.  Identify the numerator and denominator of a fraction.  Use models to demonstrate, compare, represent and order fractions.  Represent fractions on a number line.  Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line.	Boards Thumbs up/Thumbs down Games Journaling Interactive whiteboard activities Solve and Explain	40 Random Acts of Kindness for Lent- challenge students to track the random acts of kindness they do each day. At the end of Lent, count up how many acts they did. What fraction represents the number you did out of the 40?

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions (e.g., by using a visual fraction model).				
3.MD.S1 Carry out simple unit conversions within a system of measurement (e.g., hours to minutes, cents to dollars, yards to feet or inches, meters to centimeters).	Measurement	Recognize customary and metric units of measurement for temperature, length, liquid volume, and mass. ( <i>Continue in 3<sup>rd</sup> Trimester</i> )  Perform simple conversions within the same measurement system.		
		Measure the length of an object to the nearest inch.		

**Second Trimester: December-February** 

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
3.MD.1 Tell and write time to the nearest	Time	Express time to the hour,		
minute and measure time intervals in		half hour, quarter hour,		
minutes. Solve word problems involving addition and subtraction of time intervals		minute and five minutes.		
in minutes (e.g., by representing the		Calculate elapsed time		
problem on a number line diagram).		using a line diagram.		
		using a fine diagram.		
3.OA.8 Solve two-step word problems	Problem Solving	Solve word problems using		Have students work in
using the four operations. Represent		a four step strategy- <i>Read</i> ,		groups on an extended
these problems using equations with a		Plan, Solve and Check.		project based on the book,
letter standing for the unknown quantity.				"The Lemonade War".
Assess the reasonableness of answers		Apply and model problem		Each week students are
using mental computation and estimation		solving skills to real life		given specific tasks to
strategies including rounding.		situations using addition,		complete as they "start a
		subtraction, multiplication		new business". Values and
3.MD.8 Solve real world and		and division.		ethics are emphasized and
mathematical problems involving				discussed throughout the
perimeters of polygons, including finding		Solve multi-step word		course of the project.
the perimeter given the side lengths,		problems using addition,		
finding an unknown side length, and		subtraction, multiplication		
exhibiting rectangles with the same		and division.		Using the weekly
perimeter and different areas or with the				supermarket flyer, have
same area and different perimeters.		Solve word problems		students work in small
		involving elapsed time.		groups to determine the
		Explain and justify the		cost of items needed to
		mathematical thinking and		make sandwiches for a
		procedures used to solve a		local soup kitchen.
		word problem.		

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
	Math Vocabulary	Demonstrate an understanding of math vocabulary.  Use math terminology correctly.		
3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. Example: Draw a bar graph in which each square in the bar graph might represent 5 pets.	Data/ Graphing	Collect, organize and display data in a variety of graphs.  Compare and interpret data presented in various types of graphs.  Draw conclusions based on data presented in various types of charts and graphs.		Food Drive- Sort and compare the different types of foods collected. Graph the findings.  Find the top ten names used by popes. Create a bar graph to show how often each name has been selected.

**Second Trimester: December-February** 

Second Trimester: December-Febru Standards	Content	Skills	Assessment	Gospel Values & Faith
				Connections
3.G.S1 Recognize, identify and draw	Geometry	Determine lines of		
congruent and similar figures.		symmetry in a figure.		
3.G.S2 Recognize lines of symmetry.		Recognize and distinguish		
		between congruent and		Observation of geometric
3.G.S3 Identify transformations of shapes and objects as reflections (flips),		similar figures.		and numerical patterns
rotations (turns), and translations				reveals the order
(slides).		Identify transformations of		throughout God's creation,
(Sindes).		two dimensional and three		Repetition and patterns in
3.G.1 Understand that shapes in different		dimensional figures as		creation can be seen in the
categories (e.g., rhombuses, rectangles,		reflections, rotations or		design of a honeycomb
and others) may share attributes (e.g.,		translations.		(hexagons), the stripes on a
having four sides), and that the shared				zebra, the seeds in a
attributes can define a larger category (e.g., quadrilaterals). Recognize		Classify and draw angles.		sunflower, the planets and
rhombuses, rectangles, and squares as				their orbits, etc.
examples of quadrilaterals, and draw		Identify, draw and		
examples of quadrilaterals that do not		recognize types of lines.		
belong to any of these subcategories.		Recognize and classify		Lead students on a search
		polygons.		for geometric figures within
		polygons.		the church setting. Have
				them list the shapes they
				find and tell where they
				found them.

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
3.MD.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	Geometric Measurement	Calculate perimeter of polygons.  Recognize area as an attribute of plane figures and understand concepts of area measurement.		
<ul> <li>3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.</li> <li>a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.</li> <li>b. A plane figure which can be covered without gaps or overlaps by <i>n</i> unit squares is said to have an area of <i>n</i> square units.</li> </ul>		Determine the area of a plane figure by counting unit squares.  Demonstrate an understanding of the formula for calculating area of a rectangle		
3.MD.6 Measure areas by counting unit squares (square cm, square m, square inches, square ft, and improvised units).				
<ul> <li>3.MD.7 Relate area to the operations of multiplication and addition.</li> <li>a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.</li> </ul>				

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.				
	Probability/ Statistics *Probability/ Statistics to be taught in 2 <sup>nd</sup> or 3 <sup>rd</sup> trimester	Distinguish between certain, possible and impossible outcomes.  Classify outcomes as certain, likely, unlikely or impossible.		
		Generate the range, median, and mode of data set.		

Third	Trimester	<b>March-June</b>
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Third Trimester: March-June					
Standards	Content	Skills	Assessment	Gospel Values & Faith Connections	
3.OA.5 Apply properties of operations as	Multiplication	Calculate the product of 3	Student learning will be	Gospel values should be	
strategies to multiply and divide.		one-digit factors.	assessed on a continual	evident in the classroom	
Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known (Commutative			basis using various types of	environment and	
Property of Multiplication). $3 \times 5 \times 2$		Apply knowledge of basic	formal and informal	referenced and reinforced	
can be found by $3 \times 5 = 15$ , then $15 \times 2$		multiplication facts	assessments. A list of	throughout the curriculum.	
$= 30$ , or by $5 \times 2 = 10$ , then $3 \times 10 = 30$ .		multiple single digit	possible assessment	Cognel Walnes	
(Associative Property of Multiplication).		numbers by multiples of ten.	methods is provided below:	Gospel Values Community	
Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$ ,		ten.	Test	Compassion	
one can find $8 \times 7$ as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ .			Quizzes	Faith in God	
(Distributive Property).			Teacher Observation	Forgiveness	
			Projects	Норе	
3.NBT.3 Multiply one-digit whole			Oral Test/Drills	Justice	
numbers by multiples of 10 in the range $10-90$ (e.g., $9 \times 80$ , $5 \times 60$ ) using			Group Projects	Love	
strategies based on place value and			Surveys and Graphs	Peace Respect For Life	
properties of operations.			Standardized Test Preps	Service	
			Center Activities	Simplicity	
			Homework	Truth	
3.OA.7 Fluently multiply and divide	Division	Divide two-digit dividends	Classwork		
within 100, using strategies such as the	Division	by one-digit divisors	Timed Drills	Included in this column are	
relationship between multiplication and		resulting in one-digit or	Exit Slips	suggestions for making	
division (e.g., knowing that $8 \times 5 = 40$ ,		two- digit quotients.	Pre- Test/Post- Test	faith connections within the	
one knows $40 \div 5 = 8$ ) or properties of			Online Assessment	Math classroom. These	
operations. (By the end of Grade 3, students should know from memory all			Problem of the Day	suggestions were submitted	
products of two one-digit numbers.)				by teachers.	
			Individual Response		

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Third Trimester: March-June

Third Trimester: March-June					
Standards	Content	Skills	Assessment	Gospel Values & Faith Connections	
3.MD.S3 Represent the possible outcomes for a simple probability situation (e.g., the probability of drawing a red marble from a bag containing three red marbles and four green marbles).  3.MD.S4 Classify outcomes as <i>certain</i> , <i>likely</i> , <i>unlikely</i> , <i>or impossible</i> by designing and conducting experiments using concrete objects such as counters, number cubes, spinners, or coins.	Probability/ Statistics *Probability/ Statistics to be taught in 2 <sup>nd</sup> or 3 <sup>rd</sup> trimester	Distinguish between certain, possible and impossible outcomes.  Classify outcomes as certain, likely, unlikely or impossible.  Generate the range, median, and mode of data set.	Boards Thumbs up/Thumbs down Games Journaling Interactive whiteboard activities Solve and Explain		
3.NF.3c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3 = 3/1$ ; recognize that $6/1 = 6$ ; locate $4/4$ and 1 at the same point of a number line diagram.	Fractions/ Decimals	Relate fractions with denominators of 10 and 100 to their decimal equivalent.  Express whole numbers as fractions.			
		Recognize fractions that are equivalent to whole numbers.			

Third Trimester: March-June

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
		Use models to represent addition and subtraction of fractions with like denominators.  Relate decimals to money.		
3.OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.  3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes (e.g., by representing the problem on a number line diagram).  3.MD.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	Problem Solving	Solve word problems using a four step strategy- Read, Plan, Solve and Check.  Apply problem solving strategies to real life situations involving addition, subtraction, multiplication, division, money, elapsed time, geometric concepts, fractions, etc  Solve multi-step word problems involving addition, subtraction, multiplication, division, money, elapsed time, geometric concepts, fractions, etc.		Based on the following information: \$5 can buy milk for one child for one month and for 10 children for one week; \$3 can buy 75 pencils for a mission school; \$4 can buy bread, students can use their knowledge of multiplication and division to quantify the help they generate in their collection of mission money over a specific amount of time.

Third Trimester: March-June

Standards	Content	Skills	Assessment	Gospel Values & Faith Connections
		Explain and justify the mathematical thinking and procedures used to solve word problems.		
3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. Example: Determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$ , $5 = \Box \div 3$ , $6 \times 6 = ?$ .	Basic Algebra	Determine the unknown number in a simple algebraic equation.		
	Math Terms	Demonstrate understanding of math vocabulary.  Use terminology correctly.		