Diocese of Erie			
	Mathematics		
	Kindergarten		
Unit of Study:		Weeks: 4	
Unit 1: Classify, Count and Write I	Numbers to 10		
Purpose: Fluently count and write	numbers 0-10. Associate numbers		
0-10 with the correct quantity of i	tems.		
Essential Questions:			
 How does counting affect 	us in our everyday lives?		
 How are ordinal number i 	relationships represented mathema	tically?	
 How can we classify number 	pers of things?		
Standards:			
K.CC Know number names and the	e count sequence.		
K.CC.4 Write numbers from 0-20.			
K.CC.5 Represent a number of obj	jects with a written numeral 0-20 (w	ith 0 representing a count of no	
objects).			
K.CC.6 Identify ordinal positions t	hrough five.		
K.CC Count to tell the number of o	objects.		
K.CC.7 When counting objects, sa	y the number names in the standard	l order, pairing each object with	
one and only one number name a	nd each number name with one and	l only one object.	
K.CC.8 Understand that the last n	umber name said tells the number o	of objects counted. The number of	
objects is the same regardless of t	heir arrangement or the order in w	nich they were counted.	
K.CC.9 Understand that each succ	essive number name refers to a qua	ntity that is one larger.	
K.CC.10 Count to answer "how ma	any?" questions about as many as 2	O things arranged in a line, a	
rectangular array, or a circle, or as	s many as 10 things in a scattered co	onfiguration.	
K.CC.11 Given a number from 1-2	0, count out that many objects.		
Standards Reinforced:			
n/a			
Vocabulary:	number line	quantity	
count	numeral	tens frame	
digit	ordinal	total	
number names (zero to ten)			
Authentic Performance Assessme	ent:		
Verbally count to 10.			
Use manipulatives to classify item	s up to 10.		
Count objects on paper.			
Write numbers to 10.			
Use manipulatives to identify ordinal numbers.			
·····, ····			
Computation Skills:			
Counting			
Thinking and Reasoning Skills:			
Classify the numbers visually.	Classify the numbers visually.		
Make physical models of numbers and quantities.			

Draw pictures to represent quantities. Create stories in which a character counts or quantifies. **Real World Problems & Application/Catholic Identity:** Use ordinal numbers to describe place in classroom line. (e.g. first is line leader) Use grade levels to help understand ordinal numbers. Counting and putting in order the days of creation using ordinal numbers. Morning meeting. Begin to count the days of school and identify group of ten once you've reached the 10th day. Count number of students, and or boys/girls in the classroom. Reading the room –finding numbers that are located throughout the room. Lunch Count Count equal number of team members for team sports; keep score in team sports. Counting the persons of the Holy Trinity Counting the animals on the ark Counting the set of beads on the rosary (to 10) **Reading and Writing in Math:** Read aloud (e.g. "10 Little Rubber Ducks" by Eric Carle, ROAR! A Noisy Counting Book, etc.) Poem/number rhymes **Questions/Discussion Strategies:** How old are you? How many people are in your family? How many students should be in a center? Who is the first and last person in line? What animals have 2/4/6/8 legs? What is your favorite number and why? How might you teach a younger sibling to count to 10? What is the best song/rhyme to help you remember how to count to ten? Why? When would be a time you would want to be first for something? When is a time you would not? Technology/Manipulatives: Youtube Songs that teach counting to 10: **Storybots** Jack Hartmann Count to 10 _ Pink Fong Super Simple Songs Online Games: ABC Ya! Students are asked how old a character is. They click on candles, which verbally count the character's age. Then they select the proper numeral from three answer choices. Education.com This site features a variety of counting games. Some will be beneficial for ontarget learners and some deal with more advanced topics, such as skip counting or counting to 10. Each game is clearly labeled. PBS Kids.org Students are given a numeral and asked to choose the group of items that would be a tasty snack for Cat. The number of items is not mentioned until the answer is confirmed or students are urged to try again. Math Games.com This site features a variety of counting games. Each game is clearly labeled. IXL -Songs on gonoodle.com Manipulatives:

- Counting bears
- Counting beans

- Buttons, seasonal mini erasers, etc.
- Flash cards (could also have ones that contain pictures and not just numbers)

Accommodations/Acceleration/Differentiation:

Accommodation:

Provide multiple opportunities with varied manipulatives to count.

Repeated exposure to numerals

Send materials home for practice.

Use motions or dance when counting.

Encourage students to physically trace or create numerals and to touch or move objects when counting.

Differentiation:

Advance to number exposure beyond 10

Diocese of Erie				
Mathematics				
Unit of Study	Kindergarten	Weeks: 2		
Unit 2: Identify and Describe Shar		WEEKS. 2		
Purpose: Students can correctly n	ame and identify basic two- and			
three-dimensional shapes, regard	less of their environment.			
Essential Questions:	Essential Questions:			
- What attributes are important for naming shapes?				
- What is the difference be	tween 2D and 3D shapes?			
- How can the application c	of the attributes of geometric shape	es support mathematical		
reasoning and problem so	olving?			
Standards:	,			
K.G Identify and describe shapes.	(squares, circles, triangles, rectang	les, hexagons, cubes, cones,		
cylinders, and spheres)				
K.G.1 Describe objects in the envi	ronment using names of snapes an	d describe the relative positions		
or these objects using terms such	as above, below, beside, in front of	n, benind, and next to. (squares,		
K C 2 Correctly name shapes rega	gons, cubes, cones, cylinders, and s	pheres)		
K.G.2 Correctly name shapes rega	ncienal (lying in a plane, "flat") or t	hroe dimonsional ("solid")		
r.d.s identity shapes as two-diffe	insional (lying in a plane, nat) of i			
Standards Reinforced:				
K.CC Know number names and the	e count sequence.			
K.CC.4 Write numbers from 0-20.				
K.CC.5 Represent a number of obj	ects with a written numeral 0-20 (with 0 representing a count of no		
objects).				
Vocabulary:	flat	Solid figure		
attribute	flip	sphere		
circle	hexagon	square		
cone	length	triangle		
corners (vertices)	plain figure	three dimensional		
cube	rectangle	turn		
cylinder	sides	two dimensional		
faces	slide			
Authentic Performance Assessme	ent:			
Find and name 2D and 3D shapes	located within the classroom.			
Find and name 2D and 3D objects that closely resemble shapes studied (e.g. pizza is like a circle, ball is				
like a sphere).				
Give directions to a 2D or 3D shape in the classroom.				
Go on a shopping trip around the classroom for two cylinders, one sphere, three circles, and one				
triangle. (Teacher supplies a "store" and students select the correct items and explain their selection).				

Computation Skills:

counting

Thinking and Reasoning Skills:		
Differentiate between 2D and 3D shapes		
Sort 2D shapes using problem solving skills		
Recognize shapes no matter the position (flipped, turned, etc.)		
Real World Problems & Application/Catholic Identity:		
Complete simple puzzles		
Think of shapes all around you (i.e. at home, on the playground, etc.)		
Shapes in church (i.e the altar, windows, pews, hymnal, bible, etc.)		
The triangle is a shape to explain 3 persons in one God		
Reading and Writing in Math:		
Read aloud. Options include but are not limited to:		
- <u>Mouse Shapes</u> by Ellen Walsh		
 <u>Block City</u> by Robert Louis Stevenson 		
 <u>Shapes are Everywhere</u> by Charles Ghigna, 		
 <u>The Secret Birthday Message</u> by Eric Carle) 		
 <u>Ten Apples Up on Top</u> by Dr. Seuss, sung in the style of Jason Mraz 		
Questions/Discussion Strategies:		
What shapes would you use to make a house?		
How is a rectangle different than a square?		
What is your favorite shape and why?		
How is a circle different than any other shape?		
How are two-dimensional shapes different from three dimensional shapes?		
Why do you think it is important to use the same words to describe a shape (e.g. corners/vertices,		
flat, sides, etc.)?		
How can you tell a shape is the same if it flips over or changes its place (orientation)?		
Technology/Manipulatives:		
Songs:		
- <u>Shape Song</u> by the Learning Station		
- <u>Shape Song</u> by Pancake Manor		
- <u>3D Shape Song</u> by Singing Walrus		
Games		
- DBS Kids A compilation of games that have to do with shapes. Teachers need to pro-sort to		
- <u>FDS Nus</u> A compliation of games that have to do with shapes. Teachers need to pre-soft to make sure that the game fits the targeted goal		
Have sure that the game hits the targeted godi.		
- <u>coucation.com</u> compliation of games that focus on practicing two dimensional snapes.		
- <u>rurtie Diary</u> compliation of games which allows the user to sort based on grade level, ranking,		
and topic. Each game comes with a 2-3 sentence summary.		
Manipulatives:		
- Pattern blocks		
- Unifix cubes		

- 2D and 3D shapes
- Materials to trace and cut out named shapes

Accommodations/Acceleration/Differentiation: Accommodation: Provide multiple opportunities to explore various shapes. Send materials home for practice.

Acceleration: Introduce more complex shapes. Design your own shape creations.

Diocese of Erie			
Mathematics			
Kindergarten			
Unit of Study		Weeks: 5	
Unit 3: Comparison with Length, V	Veight and Numbers to 10		
Purpose: Compare the value of tw	o numerals between 0 and 10.		
Describe and compare measurable	e attributes including quantity,		
length, and weight.			
Essential Questions:			
 How/why do we measure 	things?		
 How can objects be classif 	fied?		
 How do we compare num 	bers?		
 What are graphs and how 	are they useful to interpret data?		
Standards:			
K.CC Compare numbers.			
K.CC.12 Identify whether the num	ber of objects in one group is grea	ter than, less than, or equal to	
the number of objects in another	group. (Use matching and counting	g strategies.)	
K.CC.13 Compare two numbers be	etween 1 and 10 presented as writ	ten numerals.	
K.MD Describe and compare measure	surable attributes.		
K.MD.1 Describe measurable attri	butes of objects, such as length or	weight. Describe several	
measurable attributes of a single of	obiect.		
K.MD.2 Directly compare two objective	ects with a measurable attribute in	common to see which object has	
"more of"/"less of " the attribute.	and describe the difference.	·····	
K.MD Classify objects and count the	he number of objects in each categ	zorv.	
K.MD.3 Classify objects into given	categories: count the number of c	bliects in each category and sort	
the categories by count Limit cate	and a second second the less than or equi	al to 10	
K MD 7 Becognize create and int	ernret data from a simple har gran	hand nictograph	
Standards Reinforced:			
K.CC Know number names and the	e count sequence		
K CC 1 Rote count to 100 by 1's	e count sequence.		
K CC 3 Count forward beginning fu	com a given number within the kno	wn sequence (instead of having	
to begin at 1)		swir sequence (instead of having	
K CC 4 Write numbers from $0-20$			
K CC 5 Represent a number of obi	ects with a written numeral 0-20 (with 0 representing a count of no	
objects)		with brepresenting a count of no	
K CC 6 Identify ordinal positions the	arough five		
K.C. Bidentity ordinal positions through the.			
Vocabulary:			
balance	height	object	
higger	larger	quantity	
compare	length	ruler	
different	loss (than)	samo	
digit	lightor	scale	
agual	longor	shortor	
equal		shorter	
rewer	mass	Size smaller	
graph	measure	smaller	
greater (than)	more	tailer	
heavier	number	weight	
Authentic Performance Assessme	ent:		

Weigh different objects using a balance scale and verbally explain the results.
Sort and graph different colored M&M's.
Use snap cubes to measure the height and length of objects.
Computation Skills:
counting
weigning
measuring
graphing
Thinking and Reasoning Skills
Compare and describe the length height weight or quantity of classroom objects
Compare the length, height, weight, or quantity of classroom objects. (Ex: longer, shorter, heavier,
greater than)
Use various tools to measure attributes. (Ex: snap cubes, straws, toy cars, etc.)
Use numerals to communicate when comparing measurable attributes. For example, the red car is 4
cubes long, and the blue car is 6 cubes long. The blue car is bigger.
Real World Problems & Application/Catholic Identity:
Compare students' heights, shoe size, etc. Once finished, reinforce that we are all God's children and
no matter our differences each of us is uniquely made.
Graph favorite kinds of ice cream/lunch count/weather
Compare weight of classroom objects
Compare pew lengths/heights of candles
Reading and Writing in Math:
Read aloud. Options include, but are not limited to:
On the Scale, A Weighty Tale by Brian P. Cleary
<u>Alfie the Alligator</u> by Sandy Turley
Measuring Up, an online PBS Story
<u>Just a Little Bit</u> by Ann Tompert
Multiple and
Writing: Complete the contensor I would like 10
Ouestions /Discussion Stratogies:
What would be an advantage to being the tallest or shortest in class?
What would be one of the beaviest items in school?
What is something you would like to have more or less of?
Draw a nicture of your family comparing each member's height
braw a picture of your family comparing cach member 5 height.
Technology/Manipulatives:
PBS Kids: Hosts a Curious George game that involves measuring height. Requires Flash Player.
Sid the Science Kid hosts educational games and requires Flash Player.
- Pan Balance allows students to move copper weights to weigh different sized rocks.
- Crystals Rule allows students to measure larger objects using smaller ones
Manipulatives
- Balance
- Links
- Connecting cubes
- Deck of cards
Accommodations/Acceleration/Differentiation:
Accommodations:

Provide multiple opportunities to measure with varied manipulatives. Repeated exposure to various sizes of things, encouraging verbalization of size comparisons Send materials home for practice. When comparing written numbers, use cards with pictures and numerals. Only compare numbers to 5.

Acceleration:

Compare 3 or 4 numbers at a time. Order them from least to greatest or greatest to least. Compare larger numbers than 10.

Diocese of Erie Mathematics	
Kindergarten	
Unit of Study: 4 Module 4: Addition and Subtraction of Numbers to 10 and Number Pairs (Bonds)	Weeks: 7
Purpose: Fluently add and subtract within 10 algorithmically and in real- world contexts.	
 Essential Questions: What is addition? What is subtraction? How are relationships represented mathematically? 	·
 Standards: K.OA Understand addition as putting together and adding to, and undapart and taking from. K.OA.1. Represent addition with objects, fingers, mental images, dravout situations, verbal explanations, expressions, or equations. K.OA.2. Solve addition word problems, e.g., by using objects (e.g., pethe problem. K.OA.3. Represent subtraction with objects, fingers, mental images, or acting out situations, verbal explanations, expressions, or equations. K.OA.4. Solve subtraction word problems, e.g., by using objects (e.g., represent the problem. K.OA.5. Add and subtract within 10. K.OA.6. Decompose numbers less than or equal to 10 into pairs in moobjects or drawings, and record each decomposition by a drawing or K.OA.7. For any number from 1 to 9, find the number that makes 10 mumber, e.g., by using objects or drawings, and record the answer wit K.OA.8. Fluently add and subtract within 5. 	derstand subtraction as taking wings, sounds (e.g., claps), acting nnies) or drawings to represent drawings, sounds (e.g., claps), pennies) or drawings to ore than one way, e.g., by using equation. when added to the given th a drawing or equation.
 Standards Reinforced: K.CC Know number names and the count sequence. K.CC.3 Count forward beginning from a given number within the know to begin at 1). K.CC.4 Write numbers from 0-20. K.CC.5 Represent a number of objects with a written numeral 0-20 (wobjects). K.CC.6 Identify ordinal positions through five. K.CC Count to tell the number of objects. K.CC.7 When counting objects, say the number names in the standard one and only one number name and each number name with one and K.CC.8 Understand that the last number name said tells the number of objects is the same regardless of their arrangement or the order in K.CC.9 Understand that each successive number name refers to a given of the standard of the same regardless of their arrangement or the order in K.CC.9 Understand that each successive number name refers to a given of the standard of the same regardless of their arrangement or the order in K.CC.9 Understand that each successive number name refers to a given of the standard of the same regardless of the same refers to a given of the same regardless of the same refers to a given of the same referse to a given of the	wn sequence (instead of having with 0 representing a count of no d order, pairing each object with d only one object. of objects counted. The number o which they were counted.

K.CC.10 Count to answer "how many?" questions about as many as 20 things arranged in a line, a

rectangular array, or a circle, or as many as 10 things in a scattered configuration. **K.CC.11** Given a number from 1-20, count out that many objects.

Vocabulary:	equal	plus
addend	equation	subtraction
addition	in all	sum
count on	minus	take away
difference	numeral	total
digit	number bonds	

Authentic Performance Assessment:

Model (draw, use manipulatives, use classroom items) to show all the 2-addend combinations for 10 and explain the strategies used.

Given any addition real-life problem (sum up to 10): draw, model, use a ten-frame, or use a number line to represent the answer. Explain the strategy used to arrive at the solution. Compare the strategies. Justify to the teacher which method is the best to use in this situation and why.

Computation Skills:

Counting

Addition and Subtraction

Thinking and Reasoning Skills:

What does it mean to add? (adding on) What does it mean to subtract? (take away, or lose items) How do you know when to add and when to subtract?

Which strategy did you use to solve the problem? Can you share that strategy with the class? Did anyone else use a different strategy? Can both strategies be correct?

Real World Problems & Application/Catholic Identity:

Use a new box of 10 markers and show all the 2 addend combinations of 10.

Create addition and/or subtraction word problems about your family, pets, classmates, church symbols etc.

Discuss times when a teacher or family member would need to use addition or subtraction in his or her daily life.

Discuss jobs that require addition or subtraction.

Use rosary beads to display ways to make 10.

Add the different colored candles in the Advent wreath.

Reading and Writing in Math:

Read aloud. Options include, but are not limited to:

Pete the Cat and His Four Groovy Buttons by Eric Litwin

Fish Eyes by Lois Ehlert

Ten for Me by Barbara Mariconda

Writing:

As a class with the teacher's help write various story problems and solve.

Questions/Discussion Strategies:

When could you use addition or subtraction outside of math class?

Create word problems orally using manipulatives.

What does a number sentence tell us?

Do you think that addition math works correctly all of the time? Why? Subtraction?

Technology/Manipulatives:

Games:

- <u>Starfall</u> An addition game in which students add with number sentences and counting frogs
- Education.com Addition
- <u>Education.com Subtraction</u> Assorted subtraction games, which include practice for facts within ten
- <u>Education.com Subtraction II</u> Assorted subtraction games, which include practice for facts within 10 as well as practice for students who are exposed to larger subtraction equations

Manipulatives:

- linking cubes
- ten frames
- counting bears etc.
- 2-sided counters
- flash cards

Accommodations/Acceleration/Differentiation:

Accommodation: provide modeling, send home practice problems to go over, have a number line on their desks and use of manipulatives

Acceleration: Work with 3 addends to form ten and other sums. Create word problems to fit the 3 addend problems. Increase exposure to higher numbers.

Diocese of Erie Mathematics		
Kindergarten		
Unit of Study Module 5: Time, Money, Base 10, Writing numbers to 100, Counting by 1's and 10's	Weeks: 15	
value using coins and count money using pennies, nickels, and dimes. Count fluently to 100 by tens and ones; compose and decompose numbers from 16-20.		
 Essential Questions: Why is time important? How do we measure time and what tools can measure it? Why do we learn about money? What is base 10 and how is it used? What is counting and how can it be used? How do we communicate with numbers? 		
 Standards: K.CC Know number names and the count sequence. K.CC.1 Rote count to 20 by 1's. K.CC.2 Rote count to 100 by 10's. K.NBT Work with numbers 11 - 19 to gain foundations for place value. K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation. Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. K.MD Classify objects and count the number of objects in each category. K.MD.3 Classify objects into given categories; count the number of objects in each category and sort the categories by count. Limit category counts to be less than or equal to 10. K.MD.4 Tell time to the hour and half hour. K.MD.5 Identify coins: penny, nickel, and dime. K.MD.6 Count coins using the cent sign. 		
 Standards Reinforced: K.CC Count to tell the number of objects. K.CC.3 Count forward beginning from a given number within the know to begin at 1). K.CC.4 Write numbers from 0-20. K.CC.5 Represent a number of objects with a written numeral 0-20 (w objects). K.CC.6 Identify ordinal positions through five. K.CC.7 When counting objects, say the number names in the standard one and only one number name and each number name with one and 	vn sequence (instead of having with 0 representing a count of no d order, pairing each object with d only one object.	

K.CC.8 Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

K.CC.9 Understand that each successive number name refers to a quantity that is one larger. **K.CC** Count to tell the number of objects.

K.CC.10 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration.

K.CC.11 Given a number from 1-20, count out that many objects.

K.OA Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

K.OA.1 Represent addition with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.2 Solve addition word problems, e.g., by using objects (e.g., pennies) or drawings to represent the problem.

K.OA.3 Represent subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.4 Solve subtraction word problems, e.g., by using objects (e.g., pennies) or drawings to represent the problem.

K.OA.5 Add and subtract within 10.

K.OA.6 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation.

K.OA.7 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. **K.OA.8** Fluently add and subtract within 5.

Vocabulary:	half hour	place value
coin	hour	ones
clock	hundred	tens
count	nickel	time
dime	penny	

Authentic Performance Assessment:

Sort and identify coins by their attributes and tell their value. Count the value of a group of coins. Use classroom coins to go shopping in a classroom store, keeping item prices twenty cents or less. Give reasonable times you would complete certain tasks during the day (such as wake up, go to school, eat lunch, go to bed, etc.).

Show various times on a student made clock.

Say and show how many tens and ones make up a double-digit number to 19.

Write/verbally say numbers to 20 counting by ones and tens.

Write/verbally say numbers to 100 counting by ones and tens.

Computation Skills:

Counting money adding subtracting telling time

place value

Thinking and Reasoning Skills:

How do coins differ? What can we use to tell time? How does telling time help us communicate with each other? Composition and decomposition of numbers into tens and ones. (e.g. 13 is 1 ten and 3 ones, 1 ten and 3 ones are 13) When would counting by tens be useful?

Real World Problems & Application/Catholic Identity:

What could you do with your money? (Can include Catholic Identity by drawing attention to donating to the school/church/needy etc.)

What are ways you can obtain money? (Can include Catholic Identity in ways you can earn money through the church such as becoming a priest, office secretary, Catholic School teacher, etc.) Why is it important to be able to tell time? (Can include Catholic Identity by identifying times Masses begin and recognizing that we should use our time wisely) Giving time in your day to God.

Reading and Writing in Math:

Read aloud. Options include, but are not limited to: <u>The Coin Counting Book</u> by Rozanne Lanczak Williams <u>Telling Time with Big Momma</u> Cat by Dan Harper <u>What Time is it Mr. Crocodile?</u> By Judy Sierra <u>Curious George Learns to Count from 1 to 100</u> by H.A. Rey <u>Curious George Saves His Pennies</u> by H.A. Rey <u>Toasty Toes: Counting by Tens</u> by Michael Dahl

Writing:

Write out a simple daily schedule.

Write a story about a time you spent money on something.

Write numbers to 100.

Fill in the numbers on a blank calendar.

Write about events you hope to attend, including the time they begin and end.

Questions/Discussion Strategies:

Where are some places you need to be at a certain time?

How could you use manipulatives or a drawing to show your thinking? Ex. How can you show a number in more than one way?

How did you get that answer and why is it true? Ex. How did you come up with that coin amount and why is it true?

Is there more than one way to find the solution? Why did you choose your method?

Technology/Manipulatives:

Games:

- Education.com Various money games
- Education.com <u>Telling Time</u>
- Education.com Place Value
- ABC Ya! Identifying coins
- ABC Ya! <u>Counting Coins</u>
- ABC Ya! <u>Telling Time</u>

- ABC Ya! <u>Counting to 100</u>
- ABC Ya! Fill in the 100 Chart
- Turtle Diary Various money games
- Turtle Diary <u>Time and Calendar games</u>
- Starfall <u>Counting to 100</u>

Counting to 100 songs on youtube:

- <u>Numbers Help Me Count to 100!</u> by Harry Kindergarten Music
- <u>Count to 100</u> by The Singing Walrus
- <u>Counting by Tens</u> by The Singing Walrus
- Let's Get Fit by Jack Hartmann
- <u>Count to 100</u> by The Kiboomers
- GoNoodle song Count to 100

Money Songs:

- GoNoodle song <u>Getcha Money Right</u> Some content is beyond the scope of this lesson, but the song identifies distinguishing characteristics of each coin.

Kidzone printable book about time

Manipulatives:

- Play money
- Classroom Calendar
- Place Value Chart (up to hundreds)
- Place value cubes- 1's cubes, 10's rods and 100's square
- Hundreds chart
- Number Line
- Judy Clock

Accommodations/Acceleration/Differentiation:

Accommodations:

Provide multiple opportunities with varied manipulatives to count

Repeated exposure to coins

Send materials home for practice

Provide modeling

Acceleration: Expand place values beyond 20. Provide opportunities to display tens and ones to 100.

Diocese of Erie			
Mathematics			
Unit of Study	Weeks	:2	
Module 6: Analyze, Compare, Cre	ate. and		
Compose Shapes			
Essential Questions:			
- When is one object or sha	pe bigger than another?		
- How can geometric relation	onships be compared and	analyzed?	
 Standards: K.G.4 Analyze two- and three-dimensional shapes using informal language to describe parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). K.G.5 Compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, and differences. K.G.6 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. 			
 K.G.7 Compose simple shapes to form larger shapes. Standards Reinforced: K.CC Know number names and the count sequence. K.CC.4 Write numbers from 0-20. K.CC.5 Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). K.CC Count to tell the number of objects. K.CC.7 When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. K.CC.8 Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. K.CC.11 Given a number from 1-20, count out that many objects. K.G Identify and describe shapes. (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres) K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. Squares, circles, triangles, rectangles, nexagons, cubes, cores, cylinders, and spheres K.G.2 Correctly name shapes regardless of their orientation or overall size. K.G.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three dimensional ("solid"). 			
Vocabulary: area circle cone corners (vertices) cube cylinder	equal flat hexagon height length rectangle sides	solid sphere square three dimensional two dimensional triangle	

Authentic Performance Assessment:

Create 2D and 3D shapes using playdough, toothpicks and marshmallows, etc. Analyze and sort classroom objects by shape and size. Design large structures using shapes.

Computation Skills:

counting

Thinking and Reasoning Skills:

Compare and contrast 2D and 3D shapes using problem solving skills. Visually discern shapes in different orientations.

Real World Problems & Application/Catholic Identity:

Compare different 2D and 3D shapes found in the church and classroom.

Create pictures using tangrams.

Complete a 20 or more piece puzzle.

Explore how God uses shapes in nature. (animals, landscapes, etc.)

Reading and Writing in Math:

Draw a picture and write a sentence about a shape.

Read aloud (i.e. <u>My Shapes Book</u> by Maria Yiangou, <u>Captain Invincible and the Space Shapes</u> by Stuart J. Murphy, or the Silly Story of Goldie Locks and the Three Squares)

Questions/Discussion Strategies:

Describe and explain your shape creation. Where can you find shapes in your daily environment? What would happen if there were no 3D shapes?

Technology/Manipulatives:

The Teaching From the Heart <u>blog</u> includes several differentiated and hands-on ideas for exploring 2D and 3D shapes with kindergarten students.

Manipulatives:

- Bristle blocks, wooden blocks, etc.
- Wiki sticks
- Pattern blocks
- Unifix cubes
- 2D and 3D shapes
- Osmos
- Magnatiles

Starfall: <u>2 and 3D shape sort</u> game with real life objects

Video clip from Inside Out – <u>Bingbong's Shortcut</u> Characters enter the land of abstract thought. On their journey, they turn into a compilation of 3D shapes, then into a compilation of 2D shapes, followed by a line and reverse the process back to their normal selves.

Accommodations/Acceleration/Differentiation:

For struggling students: Provide multiple opportunities to explore various shapes utilizing various senses. Send materials home for practice

For advanced students: Introduce more complex shapes. Design your own shape creations