DEPARTMENT of EDUCATION
louisiana Believes

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
Language of Math Counting (1-5)	One to One Correspondence (1-5)	Awareness and Knowledge of Basic Shapes / Understanding Basic Patterns	Recognizing Numbers (0-5)	Counting (6-10)	One to One Correspondence (6-10)	Recognizing Numbers (6-10)	Number Operations	Comprehending Measurement	Counting to 20
3 weeks	3 weeks	3 weeks	3 weeks	3 weeks	3 weeks	3 weeks	3 weeks	3 weeks	3 weeks
CM 1: 4.1	CM 1: 4.3	CM 2: 4.2	CM 1: 4.1	CM 1: 4.1	CM 1: 4.3	CM 1: 4.1	CM 2: 4.3	CM 2: 4.2	CM 1: 4.1
CM 1: 4.2	CM 1: 4.4	CM 2: 4.1							
CM 1: 4.4	CM 1: 4.7	CM 4: 4.1							
CM 1: 4.7		CM 4: 4.2	CM 1: 4.5	CM 1: 4.2	CM 1: 4.4	CM 1: 4.5	CM 2: 4.4	CM 3: 4.1	CM 1: 4.2
CM 1: 4.8		CM 4: 4.3	CM 1: 4.6	CM 1: 4.4	CM 1: 4.7	CM 1: 4.6			CM 1: 4.4
CM 3: 4.1		CM 4: 4.4							
CM 4: 4.1									
CM 4: 4.2									
CM 4: 4.5									

Major Clusters	Supporting Clusters	Additional Clusters
CM 1: Understand numbers, ways of representing numbers, and relationships between number and quantities. (4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8)		CM 2: Understand basic patterns, concepts, and operations (4.1, 4.2, 4.4, 4.4) CM 3: Understand attributes and relative properties of objects as related to size, capacity, and area. (4.1) CM 4: Understand shapes, their properties, and how objects are related to one another in space. (4.1, 4.2, 4.3, 4.4, 4.5)

Summary of Year for Grade Level Mathematics

Prekindergarten children learn math naturally. Counting for young children is a natural task and they will continually construct math ideas based on their experiences in the environment. Young children need things to sort, count, match, compare, put together, and take apart. Prekindergarten teachers with high regard for children's perspectives can foster math in young children by providing language rich environments, time to explore and asking questions that help them to reason and solve problems. When provided with the appropriate math materials and experiences for active engagement, prekindergarten children can explore concepts related to patterns, shapes, numbers, measurement, and space. Teachers should intentionally introduce math concepts and model use of the language of math throughout all activities in the daily schedule and routines.

Possible time frame for each unit: 3 weeks

Teachers are encouraged to adjust the time frame as needed depending on the needs and interests of the children. Although numerous standards across domains are addressed in each unit, the Focus Standards listed in the Unit Lesson Plans will be helpful in guiding assessment, planning and evaluating progress.

Standards Clarification for Grade Level Mathematics

Some standards are included in multiple units to provide students with multiple opportunities to engage with the content. In the tables that follow, suggested focus areas and possible benchmarks for repeated standards are identified in the column labeled Standards Clarification.

Mathematical Practices Recommendations for Grade Level Mathematics

Mathematical practices should be evident *throughout* the day and connected to all of the content areas addressed at this grade level. Mathematical tasks (short, long, scaffolded, and unscaffolded) are an important opportunity to connect content and practices. Some brief examples of student behaviors associated with the eight Standards for Mathematical Practice can be found in the progression of math practices from Kindergarten to Grade 2.

Fluency Expectations for Grade Level Mathematics

CM 1: 4.1 Verbally count by ones to 20

Unit #1: Language of Math and Counting (1-5)	Possible time frame: 3 weeks

Prekindergarten children must be able to understand and use the vocabulary of mathematics. They need to understand and describe the relationship of things in the environment to one another. Prekindergarteners should understand and be able to use positional words and words such as *smaller than, bigger than, same as*, and *different than*. They should also engage in meaningful counting activities in the context of their daily routines. They need many opportunities to count and expand their sense of number. The focus should be on counting orally to 5.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between numbers and quantities. **4.1** Verbally count by ones to 20. **4.2** Count forward from a given number between 1 and 10, and count backward from 5. **4.4** Count out a specified number of objects from with a set of 10 or fewer objects when asked. **4.7** Compare sets of objects using *same/different* and *more/less/fewer*. **4.8** Identify an object's or person's position as first or last.	Prekindergarten children are not expected to understand and be able to use all math terms presented to them in this timeframe. They should begin to know and understand these concepts as they relate to their knowledge and understanding of the world around them. Language development in all areas should continue throughout the entire school year. Also during this timeframe, children are not expected to count higher than 5 at this time. Use books, songs, finger plays, etc. to help children learn to count to 5.
Additional Cluster Standards	Standards Clarification
CM 3: Understand attributes and relative properties of objects as related to size, capacity, and area. **4.1** Describe measurable attributes (length and weight) of objects and materials, using comparative words. **CM 4: Understand shapes, their properties, and how objects are related to one another in space.** **4.1** Identify and name at least the four basic shapes (rectangles, squares, circles, and triangles) when presented using different sizes and in different orientations. **4.2** Describe and name attributes of four basic shapes (e.g., a square has four equal sides, a circle is round). **4.5** Use and understand positions of objects, self and other people in space (e.g., in/on, over/under, up/down, inside/outside, beside/between, and in front/behind).	Begin to help prekindergarten children describe the size and shape of objects, because children do not typically use mathematical language spontaneously. They also need to hear more difficult words within context of their daily experiences.

Birth to Five Standards		Possible Assessment Items	Sample Performance Tasks
PreK Standards		*Teaching Strategies GOLD*	• Participate in counting activities such as counting # of children in line or at a table • Compare groups of boys and girls and tells which is a bigger/smaller group • Participate in number games such as BINGO, concentration, Chutes and Ladders, etc. • Run through an "obstacle course" moving over, under and through equipment
CM 1: 4.1, 4.2		**20a 6***	
CM 1: 4.4, 4.7, 4.8		**20b 6**	
CM 3: 4.1		**22 6**	
CM 4: 4.1, 4.2		**21b 6**	
CM 4: 4.5		**21a 6**	

Unit #2: One to One Correspondence (1-5)	**Possible time frame**: 3 weeks

Prekindergarten children should establish the concept of one-to-one correspondence by moving, touching, or pointing to objects as they say the number words. They should learn that the last number named represents the last object as well as the total number of objects in the collection. The focus should be on counting sets of objects up to 5.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between number and quantities **4.3** Understand that the last number named tells the number of objects counted for a set of 10 or fewer objects. **4.4** Count out a specified number of objects from with a set of 10 or fewer objects when asked. **4.7** Compare sets of objects using *same/different* and *more/less/fewer.*	Prekindergarten children are not expected to count higher than 5 at this time. Limit the number of objects, at this time, to five or less .

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 1: 4.3** **CM 1: 4.4, 4.7**	*Teaching Strategies GOLD* **20a 6*** **20b 6**	• Count number of children at their table • Count number of cookies or other snacks each child has • Participate in songs, rhymes and finger plays that require counting • Describe which child has more or less blocks or other manipulatives • Tell which trees, buildings or other structures on the school campus are taller/shorter • Count numbers of classes/doors they pass on the way to the cafeteria

Unit #3: Awareness and Knowledge of Basic Shapes and Understanding Basic Patterns	Possible time frame: 3 weeks

Prekindergarten children should be able to recognize and name at least four basic shapes (circle, square, triangle, and rectangle). They should be able to compare, match, and sort shapes according to their attributes. They also should be able to recognize simple patterns (ABAB and AABB) in the environment and create patterns through art, blocks, or other things in their environment. They should become more aware of patterns found in the environment, as well as, patterns in the arrangements of objects, shapes, and numbers. Prekindergarten children should be able to describe simple patterns, predict what comes next in the arrangement, and represent patterns through symbols and/or movement.

Additional Cluster Standards	Standards Clarification
CM 2: Understand basic patterns, concepts, and operations **4.2** Sort objects by more than one attribute (e.g., red circles or blue triangles) and explain the criteria used to sort objects. **CM 4: Understand shapes, their properties, and how objects are related to one another in space** **4.1** Identify and name at least the four basic shapes (rectangles, squares, circles, and triangles) when presented using different sizes and in different orientations. **4.2** Describe and name attributes of four basic shapes (e.g., a square has four equal sides, a circle is round). **4.3** Copy or replicate one or two dimensional shapes using a variety of materials. **4.4** Combine (compose) or take apart (decompose) shapes to make other shape(s) (e.g., put two triangles together to make a square, take two halves of a rectangle apart and recognize that pieces are two other shapes).	Prekindergarten children need to handle, manipulate, draw and represent shapes in a variety of ways. Matching or classifying various sized shapes by their properties helps children focus on critical attributes of each shape. Activities used to teach patterns should be hands-on and interactive. The use of paper/pencil activities (i.e. worksheets) are not meaningful or developmentally appropriate for prekindergarten children.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 2: 4.2** **CM 4: 4.1, 4.2, 4.3, 4.4**	*Teaching Strategies GOLD* **20b 6*** **21b 6**	• Combine unit blocks to make new shapes • Sort tubs of shapes by color and then by color and shape • Identify shapes in the environment (e.g. roofs-triangles) • Describe their position in relation to objects in the room (over, under, beside, across, etc.)

Unit #4: Recognizing Numbers (0-5)	Possible time frame: 3 weeks

Prekindergarten children should be able to recognize written numerals in the everyday environment. The focus should be on the numerals 0-5.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between number and quantities **4.1** Understand that the last number named tells the number of objects counted for a set of 10 or fewer objects. **4.5** Identify written numerals 0-10 in the everyday environment. **4.6** With prompting and support, match a number of objects with the correct written numeral from 0 – 10.	It is helpful to children if the number symbol is accompanied with some representation of the quantity, whenever possible. Recognition of the number 0-5 should not be taught with flashcards, but through the context of daily activities.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 1: 4.1** **CM 1: 4.5, 4.6**	*Teaching Strategies GOLD* **20a 6*** **20c 6**	• Begin to use names of numbers in play (e.g. "I need two more blocks") • Identify some numbers in the environment (e.g. room number, chart of number of children allowed in a center) • Play games matching number of objects to numerals (e.g. Hi-Ho Cherry-O, puzzles, etc.)

Unit #5: Counting (6-10)	**Possible time frame**: 3 weeks

Prekindergarten children should engage in meaningful counting activities in the context of their daily routines. They need many opportunities to count and expand their sense of number. The focus should be on counting orally from 0 to 10.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between numbers and quantities **4.1** Verbally count by ones to 20. **4.2** Count forward from a given number between 1 and 10, and count backward from 5. **4.4** Count out a specified number of objects from with a set of 10 or fewer objects when asked.	Prekindergarten children are not expected to count higher than 10 at this time. Use books, songs, finger plays, etc. to help children learn to count to 10.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 1: 4.1, 4.2** **CM 1: 4.4**	*Teaching Strategies GOLD* **20a 6*** **20b 6**	• Participate in rhyming counting games and songs that count forward and backward • Count out number of towels needed for everyone at their table to have one • Participate in counting read-alouds • Count a specified number of crayons or markers for an art activity

Unit #6: One to One Correspondence (6-10)	Possible time frame: 3 weeks

Prekindergarten children should establish the concept of one-to-one correspondence by moving, touching, or pointing to objects as they say the number words. They should learn that the last number named represents the last object as well as the total number of objects in the collection. The focus should be on counting sets of objects from 1 to 10.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between numbers and quantities **4.3** Understand that the last number named tells the number of objects counted for a set of 10 or fewer objects. **4.4** Count out a specified number of objects from with a set of 10 or fewer objects when asked. **4.7** Compare sets of objects using same/different and more/less/fewer.	Prekindergarten children are not expected to count higher than 10 at this time. Limit the number of objects at this time to ten or less.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 1: 4.3** **CM 1: 4.4** **CM 1: 4.5**	***Teaching Strategies GOLD*** **20a 6*** **20b 6** **20c 6**	• Count the number of steps, poles, doors in the hallway • Participate in class counting activities such as during calendar time • Help set out snacks (napkins, glasses, cookies, etc.) counting as they go • Participate in rhymes and finger plays that use counting backward and forward (e.g. *5 Little Monkeys, 5 Green and Speckled Frogs*) • Participate in "blastoff" – count backwards getting ready to go to lunch or outdoors ("5-4-3-2-1 We're off to the playground")

Unit #7: Recognizing Numbers (6-10)	**Possible time frame**: 3 weeks

Prekindergarten children should be able to recognize written numerals in the everyday environment. The focus should be on the numerals 6-10.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between numbers and quantities **4.1** Understand that the last number named tells the number of objects counted for a set of 10 or fewer objects. **4.5** Identify written numerals 0-10 in the everyday environment. **4.6** With prompting and support, match a number of objects with the correct written numeral from 0 – 10.	It is helpful to children if the number symbol is accompanied with some representation of the quantity, whenever possible. Recognition of the number 6-10 should not be taught with flashcards, but through the context of daily activities.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 1: 4.1** **CM 1: 4.5, 4.6**	*Teaching Strategies GOLD* **20a 6*** **20c 6**	• Participate in BINGO and number matching games • Begin to recognize numbers 1-10 on the calendar • Play number games (*Hi-Ho-Cherry-O, Chutes and Ladders, Candyland*, etc.) • Pretend to dial their phone number on the phone in the dramatic play center, naming the numerals • Count the days on the calendar with the class

Unit #8: Number Operations	Possible time frame: 3 weeks

Prekindergarten children should have experiences in representing number operations in a variety of ways.   The focus should be on 6 objects or less.

Major Cluster Standards	Standards Clarification
CM 2: Understand basic patterns, concepts, and operations. **4.3** Use concrete objects to demonstrate simple addition and subtraction problems that total 6 or fewer. **4.4** Model and act out story problems, physically or with objects, to solve whole number problems with sums less than or equal to 6.	Activities used to teach the concepts of *joining* and *taking away* should be hands-on and interactive. Children should be given opportunities to explain the results of their actions. Limit the number of objects to 6 or less.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 2: 4.3** **CM 2: 4.4**	***Teaching Strategies GOLD*** **20b 6*** **14b 4, 20b 6**	• Help with creating class graphs such as "favorite animals, foods, etc." • Act out stories or rhymes that require addition/subtraction (*5 Little Monkeys, One Little Pumpkin Sitting on a Gate*, etc.) • Assist with passing out snacks. Teachers create opportunities for children to determine "how many more" are needed (e.g." Each child gets 5 crackers, but I only gave you three. How many more do I need to give you to make 5?")

Unit #9: Comprehending Measurement	Possible time frame: 3 weeks

Prekindergarten children should be able to make comparisons of objects (shorter, longer, etc.) and recognize that objects have measurable properties (how long? how heavy?). They need many experiences which will facilitate the development and learning of measurement concepts.

Additional Cluster Standards	Standards Clarification
CM 2: Understand basic patterns, concepts, and operations **4.2** Sort objects by more than one attribute (e.g., red circles or blue triangles) and explain the criteria used to sort objects. **CM 3: Understand attributes and relative properties of objects as related to size, capacity, and area.** **4.1** Describe measurable attributes (length and weight) of objects and materials, using comparative words.	Activities used to teach this concept should be hands-on and interactive. Children should be given opportunities to explain the results of their actions.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 2: 4.2** **CM 3: 4.1**	*Teaching Strategies GOLD* **20b 6*** **22 6**	• Sort people/animal figures/blocks by size, color and/or shape or other recognizable feature • Participate in weighing activities with balance scales using a variety of materials (manipulatives, sand, water, etc.) describing which is heavier/lighter • Engage in outdoor running games towards targets (a tree or a building) that are varying distances away; compare which was a longer/shorter distance • Count how many steps it takes to go across a room; engage in comparisons of "baby steps" and "giant steps"

Unit #10: Counting to 20	**Possible time frame**: 3 weeks

Prekindergarten children should engage in meaningful counting activities in the context of their daily routines. They need many opportunities to count and expand their sense of number. The focus should be on counting orally to 20.

Major Cluster Standards	Standards Clarification
CM 1: Understand numbers, ways of representing numbers, and relationships between numbers and quantities **4.1** Verbally count by ones to 20. **4.2** Count forward from a given number between 1 and 10, and count backward from 5. **4.4** Count out a specified number of objects from with a set of 10 or fewer objects when asked.	Students should be given many opportunities to count every day. Use books, songs, finger plays, etc. to help children learn to count to 20.

Birth to Five Standards	Possible Assessment Items	Sample Performance Tasks
PreK Standards **CM 1: 4.1, 4.2** **CM 1: 4.4**	*Teaching Strategies GOLD* **20a 6*** **20b 6**	• Participate in counting days until a particular activity such as a field trip or a class party • Count the number of children on either side of the cafeteria table and compare which is larger • Participate in computer counting games such as "*How Many Fish*" • Make a train with chairs in the class and count the number of riders that can get on board