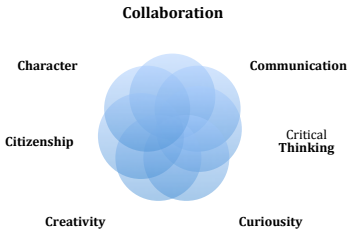
Content Area: Mathematics	Mathematics	Grade Level: Preschool
	**R14 Big Six Learning Drivers** 	

Unit Titles	Length of Unit/Contact Hours
• Foundations for Learning in a Mathematical Community	• 6-8 weeks
• Supporting Emergent Mathematicians	• Ongoing

Strands	Grade Level Expectations (Progress Reporting)
Number Sense, Properties, and Operations	• Quantities can be represented and counted.
Patterns, Functions, and Algebraic Structures	• Expectations for this standard are integrated into the other standards at this grade level.
Data Analysis, Statistics, and Probability	• Expectations for this standard are integrated into the other standards at this grade level.
Shape, Dimension, and Geometric Relationships	• Shapes can be observed in the world and described in relation to one another • Measurement is used to compare objects

Unit Title	Foundations for Learning in a Mathematical Community	**Length of Unit**	6-8 weeks

Inquiry Questions (Engaging & Debatable)	• How do we engage preschoolers in rich discussions about mathematics in large groups, small groups, and individually? • How do we provide experiences for preschoolers to compare, connect, and respond to in our daily routines and in mathematical problems?
Standards	<u>PK Standards: Mathematics:</u> PK.MP.1 Make sense of problems and persevere in solving them, PK.MP.2 Reason quantitatively, PK.MP.3 Construct viable arguments, justify reasoning and explain the reasoning of others, PK.MP.4 Model in mathematics, PK.MP.5 Use appropriate tools strategically PK.MP.6 Attend to precision, PK.MP.7 Look for and make use of structure in the environment and in routines PK.MP.8 Look for and express regularity in repeated reasoning
Strands & Concepts	• School is a place where people work, talk, and play together. • You can learn many new things about your world at school. • You can talk to show your thinking. • A mathematically rich environment stimulates children's thinking
Key Vocabulary	classroom, community, centers, calendar, rules, greetings, names, number(s), objects, combined, how many, calendar

Unit Title	Foundations for Learning in a Mathematical Community	**Length of Unit**	6-8 weeks

Critical Content: **My students will Know…**	**Key Skills:** **My students will be able to (Do)…**
● how to name objects ● what makes a pattern ● a process for noticing differences ● ways to discuss math with partners ● ways to use manipulatives for thinking	● with support, make sense of problems ● with support, start counting objects ● with support, organize objects ● organize manipulatives to show thinking ● reason with partners

Assessments:	PAF (Preschool Assessment Framework) Performance Standards: ● COG 9 Understands and interacts within the classroom with adults and peers ● P&S 3 Participates in teacher-led activities ● P&S 7 Interacts cooperatively with peers
Teacher Resources:	❖ *Region 14 Preschool Math Implementation Guide* ❖ *CT Preschool Curriculum Frameworks* ❖ *CT Preschool Assessment Frameworks* ❖ *Common Core State Mathematics Standards*

Unit Title	Supporting Emergent Mathematicians	**Length of Unit**	Ongoing

Inquiry Questions (Engaging-Debatable):	• How do activities (e.g. singing songs & rhymes) help develop pattern and number relationships? • How do we provide preschoolers with ample time to engage in problem solving? • How do we provide preschoolers ample time to engage and inquire in mathematical conversations with peers and adults? • How does learning about number relationships, in context, help us prepare to be better mathematicians?
Standards	<u>PK Standards: Mathematics:</u> **Counting and Cardinality** PK.CC.1 Associate quantities and the names of numbers with written numerals, PK.CC.2 Recognize the number of objects in small groups without counting (subitizing), PK.CC.3 Know number names and the count sequence, PK.CC.4 Count a set of objects to tell "how many" using one-to-one correspondence, PK.CC.5 Compare two numbers (quantities) within ten **Number and Operations** PK.NBT.1 Compose and decompose numbers (ex. twelve is ten and two) PK.NBT.2 Recognize numbers are contained in other numbers (hierarchical inclusion: four is in five and five is one more than four) PK.NBT.3 Recognize that numbers can be combined and separated **Measurement and Data** PK.MD.1 Describe and compare measurable attributes PK.MD.2 Sort and classify objects by attributes **Geometry** PK.G.1 Recognize and describe shapes in the environment PK.G.2 Analyze and compare shapes PK.G.3 Combine shapes to make other shapes PK.G.4 Describe the location and relative position of objects
Strands & Concepts	Finding Patterns, Counting with One to One, Measuring, Sorting, Comparing and Contrasting, Charting
Key Vocabulary	measure, shapes, object(s), first, last, middle, same, different, circles, squares, triangles, cones, cube, blocks, rhyme, balance, group, more, less, same, above, below, difference, equal, long, length, lighter, heavier, chart

Unit Title	Supporting Emergent Mathematicians	**Length of Unit**	Ongoing

Critical Content: **My students will Know…**	**Key Skills:** **My students will be able to (Do)…**
● different ways to sort objects ● what a pattern is ● instruments that measure ● ways to compare and contrast ● the concept of first and last ● names of familiar shapes ● locations, directions and positions of objects	● sort objects by one or more attributes ● recognize simple patterns ● create patterns ● demonstrate one to one correspondence while counting ● use common instruments to measure ● explore a whole and half of an object ● identify ordinal positions of objects (first and last) ● count by rote up to 20 ● identify and describe familiar shapes

Assessments:	PAF Performance Standard: • COG 3 Sorts objects • COG 5 Compares and orders objects and events. • COG 6 Relate number to quantity • P&S 5 Uses words to express emotions or feelings
Teacher Resources:	❖ *Region 14 Preschool Math Implementation Guide* ❖ *CT Preschool Curriculum Frameworks* ❖ *CT Preschool Assessment Frameworks* ❖ *Common Core State Mathematics Standards*