

East Penn School District
Elementary Curriculum

A Planned Course Statement
for

Kindergarten Mathematics

Length of Period (mins.) 60

Periods per Cycle: 5

Length of Course (yrs.) 1.0

Adopted: June 28, 2010

Revised: April, 2013

Developed by:

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Description of Course

Course Title: K-5 Mathematics

Description:

The East Penn School District Mathematics curriculum will balance the learning of both content and process. The content consists of topics in numbers and operations, measurement, geometry, statistics and probability, and algebra. The processes will focus on problem solving, communication, representation, reasoning and proof, and connections. This curriculum will reflect 21st century skills such as collaboration, critical thinking, and the effective use of technology to prepare students to become lifelong learners and contributors to a global society.

Goals:

1. To use technology as a tool to enrich learning and to enhance achievement.
2. To utilize a differentiated project-based approach grounded through student achievement data that reflects the needs of all learners.
3. To provide career exploration opportunities throughout the mathematics curriculum scope and sequence.
4. To provide a rigorous and relevant learning experience that enables students to meet or exceed state standards and to develop 21st century skills.
5. To encourage and foster collaborative home and school relationships that support students' achievement in mathematics.

Requirements:

None

Key to Levels of Achievement (Listed with each learning objective)

Awareness (A):	Students are introduced to concepts, forms, and patterns.
Learning (L):	Students are involved in a sequence of steps and practice activities which involved further development and allow evaluation of process.
Understanding (U):	Students demonstrate ability to apply acquired concepts and skills to individual assignments and projects on an independent level.
Reinforcement (R):	Students maintain and broaden understanding of concepts and skills to accomplish tasks at a greater level of sophistication.

Standards for Mathematical Practice

Common Core	PA Common Core
<ol style="list-style-type: none">1. Make sense of problems in solving them.2. Reason abstractly and quantitatively.3. Construct viable arguments and critique the reasoning of others.4. Model with mathematics.5. Use appropriate tool strategically.6. Attend to precision.7. Look for and make use of structure.8. Look for and express regularity in repeated reasoning.	<ol style="list-style-type: none">1. Make sense of and persevere in solving complex and novel mathematical problems.2. Use effective mathematical reasoning to construct viable arguments and critique the reasoning of others.3. Communicate precisely when making mathematical statements and express answers with a degree of precision appropriate for the context of the problem/situation.4. Apply mathematical knowledge to analyze and model situations/relationships using multiple representations and appropriate tools in order to make decisions, solve problems, and draw conclusions.5. Make use of structure and repeated reasoning to gain a mathematical perspective and formulate generalized problem solving strategies.

Unit	Num	Objective	Level	Content	Evaluation	Standard
Common Core Counting and Cardinality	1	The student will count using whole numbers by 1's, 5's, and 10's to 100.	U	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> • Use of 100's chart • Skip counting using manipulatives: straws, unifix cubes, popsicle sticks, etc. • Skip counting chants or songs • Use of abacus • Compare pennies, nickels and dimes • Create 100th Day activities • Use of related literature use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.1
	2	The student will use concrete objects to represent quantities up to and including 31.	U	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> • Calendar activities • Counting of manipulatives • Oral counting • Matching activities-numbers to objects • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.3
	3	The student will represent equivalent forms of the same number through the use of concrete objects, drawings, and symbols up to and including 20.	U	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> • Use of manipulatives • Use of number books • Use of pennies, nickels and dimes • Analyze pictorial representation • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.3

	4	The student will use concrete objects to demonstrate understanding of one-to-one correspondence up to and including 20.	U	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives (coins, counters) • Use of drawings • Use of songs & chants • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.2
	5	The student will count, read and write whole numbers 0-20.	U	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Number formation rhymes • Use of tactile materials (clay, sand, white boards, rainbow writing) • Use of various writing tools (markers, gel pens, chalk, paint) • Categorize and label sets of objects • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.1
	6	The students will count forward at any given number in sequence.	U	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives • Use of songs & chants • Use of Technology • Use of related literature 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.1
	7	The student will identify numbers before, after and between 0-20.	U	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives for positional words-before, after, between • Use of number lines • Applying sequencing activities • Completing fill-in-the-blank activities 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations 	CC.2.1.K.A.1

				<ul style="list-style-type: none"> • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	
	8	The student will estimate using concrete objects up to 100.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of “mystery containers” that hold different numbers of objects • Collaborate with partner activities and games (creating groups and estimating quantities) • Analyze estimate by counting the number of objects • Complete measurement activities (estimating length or height in nonstandard units) 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.1
	9	The student will use concrete objects and numbers to show equal or not equal.	U	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives (unifix cubes, pizza slices, counting bears, etc.) • Participating in games or scenarios involving “fair share” between students or groups • Apply to forms of measurement such as length and weight • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.3
	10	The student will order whole numbers (0 – 20) from least to greatest value.	U	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of placing number cards in order from 0-20. • Missing number activities • Practice and reinforcement during daily calendar routine • Use of number line and number line activities • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.1.K.A.3

<p><u>Common Core</u> Number & Operations to Base Ten</p>	<p>11</p>	<p>The student will use concrete objects to group into sets of 10.</p>	<p>U</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives (Unifix cubes, bundled straws) • Create & label sets of objects • Use of 10-frames • Create 100th Day activities (collections) • Use of related literature • Use of technology • Base 10 blocks 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	<p>CC.2.1.K.B.1</p>
	<p>12</p>	<p>The students will Use concrete object to represent quantities of place value to 19.</p>	<p>U</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives • Create role-playing opportunities • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	<p>CC.2.1.K.B.1</p>
	<p>13</p>	<p>The student will use concrete objects to show place value to compose and decompose numbers to 19.</p>	<p>A</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives • Create role-playing opportunities • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	<p>CC.2.1.K.B.1</p>
<p><u>Common Core</u> Operations & Algebraic Thinking</p>	<p>14</p>	<p>The student will represent addition and subtraction in everyday situations using up to 10 concrete items.</p>	<p>U</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives • Creating drawings • Experiencing dramatization • Solving oral word problems and stories using manipulatives or drawings 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations 	<p>CC.2.2.K.A.1</p>

				<ul style="list-style-type: none"> • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	
	15	The student will use concrete objects to explain the results of joining and separating sets of objects in quantities up to and including ten.	L	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> • Use of manipulatives (bears, links, pattern beads, etc.) • Creating drawings • Writing simple sentences to explain an addition or subtraction problem • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.2.K.A.1
	16	The student will separate concrete objects into equal groups.	A	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> • Use of manipulatives • Applying to real life situations (dividing snack between students, dividing the class into teams, etc.) • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.2.K.A.1
	17	The student will determine the sum of the same two one-digit numbers using concrete objects and/or pictures (3+3=6)	L	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> • Use of manipulatives • Creating pictures and drawings • Discussion of real life situations • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.2.K.A.1

	18	The student will identify, describe, and extend patterns based on shape, size, color, sound, or number.	L	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives for sorting (color, shape, size, function). • Use of real life patterns for pattern identification, description and extension (zebra stripes, checkerboard, clothing) • Use of manipulatives for pattern identification, description and extension (color tiles, buttons, attribute blocks) • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.2.K.A.1 CC.2.3.K.A.1
	19	The student will recreate a simple story problem and independently represent a story problem using concrete objects or pictures.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Role playing activities • Use of manipulatives (unifix cubes, counting bear, etc) • Creating sticker stories • Use of dry erase boards to write problems as they make them • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.2.K.A.1
	20	The student will use concrete objects or pictures to represent a number story that involves a missing addend.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives • Solving question marks to represent missing addends • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.2.K.A.1
	21	The student will identify the purposes for different mathematical symbols (+, -, and =).	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Creating songs, rhymes, and movement activities • Solving missing symbol activities • Providing classroom discussion 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction 	CC.2.2.K.A.1

				<ul style="list-style-type: none"> Using symbol cards for students to answer questions/play games Use of related literature. Use of technology 	<ul style="list-style-type: none"> Formative Assessment <ul style="list-style-type: none"> -checklist -diagnostic interview -teacher observations Summative Assessment <ul style="list-style-type: none"> -Kindergarten Assessment Student Self-Assessment <ul style="list-style-type: none"> -Exit Slip -Journaling 	
Common Core Measurement & Data	22	The student will compare two objects using direct comparison using length, area, weight, & capacity.	A	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> Reviewing daily examples during calendar time Use of interesting objects to compare by defined characteristics (length, height, weight) Recording results and observations (whole group or individual) Use of related literature Use of technology 	<ul style="list-style-type: none"> Performance Based Assessment <ul style="list-style-type: none"> -problem solving activity based on instruction Formative Assessment <ul style="list-style-type: none"> -checklist -diagnostic interview -teacher observations Summative Assessment <ul style="list-style-type: none"> -Kindergarten Assessment Student Self-Assessment <ul style="list-style-type: none"> -Exit Slip -Journaling 	CC.2.4.K.A.1
	23	The student will estimate and measure objects using nonstandard units.	A	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> Use of various nonstandard units (paper clips, unifix cubes, pencils, coins) Daily examples/practice during calendar time Recording and checking (whole group and individual) Use of technology 	<ul style="list-style-type: none"> Performance Based Assessment <ul style="list-style-type: none"> -problem solving activity based on instruction Formative Assessment <ul style="list-style-type: none"> -checklist -diagnostic interview -teacher observations Summative Assessment <ul style="list-style-type: none"> -Kindergarten Assessment Student Self-Assessment <ul style="list-style-type: none"> -Exit Slip -Journaling 	CC.2.4.K.A.1
	24	The student will determine the length ,height, area, weight, & capacity of objects with nonstandard units (e.g. hands, shoe lengths, paper clips)	U	Teacher guidance, student independent exploration and demonstration through: <ul style="list-style-type: none"> Use of manipulatives Investigations with recording sheets Graphing activities to compare student results 	<ul style="list-style-type: none"> Performance Based Assessment <ul style="list-style-type: none"> -problem solving activity based on instruction Formative Assessment <ul style="list-style-type: none"> -checklist -diagnostic interview -teacher observations Summative Assessment <ul style="list-style-type: none"> -Kindergarten Assessment 	CC.2.4.K.A.1

					<ul style="list-style-type: none"> • Student Self-Assessment -Exit Slip -Journaling 	
	25	The student will describe the instruments used for measuring, time, length, weight, volume, and temperature.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Discussion and questioning during calendar activities • Use of pictures, drawings, and kidwriting in response to questions • Use of related literature • Use of technology • Use of various containers and objects that lend themselves to comparison • Use of manipulatives such as attribute blocks • Discussion and comparison of everyday objects 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.4.K.A.1
	26	The student will identify the use of measurement in everyday situations.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Classroom discussions identifying the necessary steps to solve problems • Open ended questions • Providing opportunities to engage in problem solving activities (role play, games) • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.4.K.A.1
	27	The student will use math vocabulary comparison terms when making predictions regarding the quantity, size, and shape of objects.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Discussion during calendar activities • Whole group comparison of objects of different sizes • Creating writing or drawing prompts • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.4.K.A.1

<p>Common Core Standards for Mathematical Practice</p>	<p>28</p>	<p>The student will make sense of problems and persevere in solving them.</p>	<p>A</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of mathematical language and vocabulary used in problem solving. • Providing a variety of opportunities for students to identify and solve problems. • Use of open-ended playful activities for student exploration/problem solving • Use of open-ended questions • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	<p>Standard for mathematical practice #1.</p>
	<p>29</p>	<p>The student will reason abstractly and quantitatively.</p>	<p>A</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of mathematical language and vocabulary used in problem solving. • Providing a variety of opportunities for students to identify and solve problems. • Use of open-ended playful activities for student exploration/problem solving • Use of open-ended questions • Provide experiences/opportunities for students to use 5-frame (10- frame) for modeling 5/10 as anchor numbers 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	<p>Standard for mathematical practice #2.</p>
	<p>30</p>	<p>The student will construct viable arguments and critique the reasoning of others.</p>	<p>A</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of mathematical language and vocabulary used in problem solving. • Providing a variety of opportunities for students to identify and solve problems. • Use of open-ended playful activities for student exploration/problem solving • Use of open-ended questions • Use of role playing activities • Use of small group discussion • Use think-pair-share • Partner activities 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	<p>Standard for mathematical practice #3.</p>

	31	The student will use a mathematical model to describe a situation.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • 5 and 10 frames • Dot plates • Manipulatives • Journaling • Pictorial representation 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	Standard for mathematical practice #4.
	32	The student will use appropriate tools strategically.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Access to a variety of materials and tools (5/10 frames, calculator, blocks, art materials, counting pieces, collections, etc.) 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	Standard for mathematical practice #5.
	33	The student will attend to precision.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Daily routines (lunch cards, attendance, etc.) • Teacher lead through demonstration and modeling. 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	Standard for mathematical practice #6.
	34	The student will look for and make use of structure.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Identifying, completing and extending patterns. • Exploration of 100s chart (when appropriate) • 5/10 frames 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	Standard for mathematical practice #7.
	35	The student will look for and express regularity in repeated reasoning.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Using the 5 and 10 anchors • 100s chart • Calendar. Seasons • Repetition and practice with familiar activities 	<ul style="list-style-type: none"> • Teacher Observation • Work Samples (hard copy and/or photograph) • Alternative Assessments • Kindergarten Assessment 	Standard for mathematical practice #8.

<p>Common Core Geometry</p>	<p>36</p>	<p>The student will identify and describe common two and three dimensional geometric shapes.</p>	<p>U</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Exploration of the environment to locate two and three-dimensional shapes • Naming and describing shapes in their environment • Practice and reinforcement during daily calendar routine • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	<p>CC.2.3.K.A.1</p>
	<p>37</p>	<p>The student will create, analyze, compare, and reproduce geometric designs using concrete objects.</p>	<p>A</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Creating various geometric shapes with manipulatives (pattern blocks, geoboards, and tangrams) • Use of block building center • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	<p>CC.2.3.K.A.2</p>
	<p>38</p>	<p>The student will identify, describe, and extend patterns based on shape, size, color, sound, or number.</p>	<p>L</p>	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives for sorting (color, shape, size, function). • Use of real life patterns for pattern identification, description and extension (zebra stripes, checkerboard, clothing) • Use of manipulatives for pattern identification, description and extension (color tiles, buttons, attribute blocks) • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	<p>CC.2.2.K.A.1 CC.2.3.K.A.1</p>

	39	The student will draw and/or construct two-dimensional geometric shapes.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of drawings to represent geometric shapes • Exploration and creation of tangrams • Use of toothpicks and marshmallows to create shapes • Use of geoboards to construct two-dimensional shapes 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.3.K.A.2
	40	The student will name and describe two dimensional geometric shapes in real life.	L	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of magazine pictures • Use of photographs to depict shapes • Exploration of the environment to locate two-dimensional shapes • Naming and describing shapes in their environment providing data sheet for students and/or whole group to record observations and findings • Practice and reinforcement during daily calendar routine • Use of related literature 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.3.K.A.1
	41	The student will explore symmetry in nature (leaves and butterflies).	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Creation of symmetrical paper items and physically cutting the item in half • Practice and reinforcement during daily calendar routine (use of wipe-off board) • Use of mirrors to show symmetry • Use of art materials (paper, paint) to create a symmetrical shape- butterfly for example. • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.3.K.A.2

	42	The student will identify and create a reflection.	A	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Defining a reflection as a figure that does not change in size. It is often called a flip. • Use of mirrors to demonstrate a reflection. • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.3.K.A.2
	43	The student will identify geometric shapes that are turned in different ways.	L	<p>Teacher guidance, student independent exploration and demonstration through:</p> <ul style="list-style-type: none"> • Use of manipulatives such as attribute blocks • Practice and reinforcement during daily calendar routine • Use of related literature • Use of technology 	<ul style="list-style-type: none"> • Performance Based Assessment -problem solving activity based on instruction • Formative Assessment -checklist -diagnostic interview -teacher observations • Summative Assessment -Kindergarten Assessment • Student Self-Assessment -Exit Slip -Journaling 	CC.2.3.K.A.2