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**OCEAN COUNTY
MATHEMATICS CURRICULUM**

Content Area: Mathematics

Course Title: Elementary

Grade Level: Kindergarten

**Unit Plan 1: Counting
and Cardinality**

*Introduce daily/calendar routines. Standards
for all 5 units can be incorporated through
these procedures throughout the year.*

**Introduced:
September-October
Ongoing**

**Unit Plan 2:
Measurement and Data**

**Introduced:
November/December
Ongoing**

**Unit Plan
3:
Geometry**

**Introduced:
January/February
Ongoing**

**Unit Plan 4:
Operations and
Algebraic
Thinking**

**Introduced:
March/April
Ongoing**

**Unit Plan 5:
Number &
Operations in Base
Ten**

**Introduced:
May/June
Ongoing**

Standards for Mathematical Practice

The following standards for mathematical practice should be incorporated in all units.

MP.1 Make sense of problems and persevere in solving them.	<ul style="list-style-type: none">• Find meaning in problems• Look for entry points• Analyze, conjecture and plan solution pathways• Monitor and adjust• Verify answers• Ask themselves the question: "Does this make sense?"
MP.2 Reason abstractly and quantitatively.	<ul style="list-style-type: none">• Make sense of quantities and their relationships in problems• Learn to contextualize and decontextualize• Create coherent representations of problems
MP.3 Construct viable arguments and critique the reasoning of others.	<ul style="list-style-type: none">• Understand and use information to construct arguments• Make and explore the truth of conjectures• Recognize and use counterexamples• Justify conclusions and respond to arguments of others
MP.4 Model with mathematics.	<ul style="list-style-type: none">• Apply mathematics to problems in everyday life• Make assumptions and approximations• Identify quantities in a practical situation• Interpret results in the context of the situation and reflect on whether the results make sense
MP.5 Use appropriate tools strategically.	<ul style="list-style-type: none">• Consider the available tools when solving problems• Are familiar with tools appropriate for their grade or course (pencil and paper, concrete models, ruler, protractor, calculator, spreadsheet, computer programs, digital content located on a website, and other technological tools)• Make sound decisions of which of these tools might be helpful
MP.6 Attend to precision.	<ul style="list-style-type: none">• Communicate precisely to others• Use clear definitions, state the meaning of symbols and are careful about specifying units of measure and labeling axes• Calculate accurately and efficiently
MP.7 Look for and make use of structure.	<ul style="list-style-type: none">• Discern patterns and structures• Can step back for an overview and shift perspective• See complicated things as single objects or as being composed of several objects
MP.8 Look for and express regularity in repeated reasoning.	<ul style="list-style-type: none">• Notice if calculations are repeated and look both for general methods and shortcuts• In solving problems, maintain oversight of the process while attending to detail• Evaluate the reasonableness of their immediate results

OCEAN COUNTY MATHEMATICS CURRICULUM

Unit Overview

Content Area: Mathematics

Grade: Kindergarten

Domain (Unit Title): Counting and Cardinality

Cluster: K.CC

Cluster Summary:

- Know number names and the count sequence
- Count to tell the number of objects
- Compare numbers

Primary Interdisciplinary Connections:

Science	weather patterns/sequence stages of life cycle/plants
Social Studies	dates/timelines/calendar
Language Arts	morning meeting/circle time literacy counting books
Technology	interactive games/classroom website/interactive whiteboard

21st Century Themes:

Global Awareness	Students work with word problems containing names of people and locations around the world to develop understanding of diverse cultures and lifestyles.
Communication	Students use mathematical arguments to articulate thoughts and ideas with peers and teachers.
Environmental Literacy	Students demonstrate knowledge and understanding of their environmental surroundings by using counting and comparing skills.

College and Career Readiness:

Mathematics programs develops a deep understanding of mathematics by building a strong foundation of number sense at the elementary level before moving into more advanced content. Students will learn to make sense of problems and persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of a structure, and look for and express regularity in repeated reasoning.

Learning Targets

Content Standards

Number	Common Core Standard for Mastery
K.CC.1	Count to 100 by ones and tens.
K.CC.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
K.CC.3	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
K.CC.4	Understand the relationship between numbers and quantities; connect counting to cardinality. <ul style="list-style-type: none"> a) 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. b) Understand that they 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. c) Understand that each successive number name refers to a quantity that is one larger.
K.CC.5	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; given a number from 1- 20, count out that many objects.
K.CC.6	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g. by using matching and counting strategies [include groups with up to ten objects]
K.CC.7	Compare two numbers between 1 and 10 presented as written numerals.
Number	Common Core Standard for Introduction
Unit Essential Questions <ul style="list-style-type: none"> ● Why do we count things? ● Is there a wrong way to count? Why? ● How do you know when you have more or less? 	Unit Enduring Understandings <i>Students will understand that...</i> <ul style="list-style-type: none"> ● counting is used constantly in everyday life; i.e. counting toys or people on a team. ● numerals are used to represent quantities. ● people used numbers to communicate with others; i.e. two more forks are needed for the dinner table.
Unit Objectives <i>Students will know...</i> <ul style="list-style-type: none"> ● number names and the count sequence. ● numbers are used to count and order objects. ● numerals are represented by written symbols. ● numbers represent a quantity that can be compared. 	Unit Objectives <i>Students will be able to...</i> <ul style="list-style-type: none"> ● count orally to 100 (by ones and tens). ● count and represent objects up to 20. ● write numerals from 0 to 20. ● identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.

<p>Suggested Formative Assessments:</p> <ul style="list-style-type: none"> ● Teacher Observation ● Performance Assessment ● Exit Slips/Slate Assessment ● Portfolios/Journals ● Pre-Assessment · Games · Anecdotal Records · Oral Assessment/Conferencing · Daily Classwork 							
<p>Suggested Summative Assessments:</p> <ul style="list-style-type: none"> ● Tests ● Quizzes ● National/State/District Assessments 							
<p>Suggested Modifications (ELLs, Special Education, Gifted and Talented):</p> <ul style="list-style-type: none"> ● Low Level Strategies ● Modified Classwork and Homework Assignments ● Teacher Tutoring ● Parent- Teacher Communication ● Anchor Charts and Visual Aids ● Flexible Grouping ● Teacher- Student Goal Setting ● Technology Integration ● Centers 	<ul style="list-style-type: none"> ● Response to Intervention <p>High Level Strategies</p> <ul style="list-style-type: none"> ● Multi- Step and Higher Level Math Problems ● Enrich Problems ● Extend Activities ● Centers ● Student Driven Activities ● Student Choice Activities ● Peer Tutoring 						
<p>Suggested activities for lesson plans:</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 40%;">Place Value Cards</td> <td>Identify the numbers using a deck of cards</td> </tr> <tr> <td>Hungry Catepillar</td> <td>Sequence the initial sounds of the words</td> </tr> <tr> <td>Life Cycle Identification</td> <td>What shapes can you see? <i>ie. butterfly wings</i></td> </tr> </table>		Place Value Cards	Identify the numbers using a deck of cards	Hungry Catepillar	Sequence the initial sounds of the words	Life Cycle Identification	What shapes can you see? <i>ie. butterfly wings</i>
Place Value Cards	Identify the numbers using a deck of cards						
Hungry Catepillar	Sequence the initial sounds of the words						
Life Cycle Identification	What shapes can you see? <i>ie. butterfly wings</i>						
<p>Teacher Notes:</p> <ul style="list-style-type: none"> ● Introduce ordinal numbers (K.CC.4) ● Integrate standards through morning meeting and calendar routines as applicable 							

OCEAN COUNTY MATHEMATICS CURRICULUM RESOURCES

Math Domain: Counting and Cardinality

Grade: Kindergarten

Cluster:

- Know number names and the count sequence

- Count to tell the number of objects
- Compare numbers

Content Standard: K.CC.1, K.CC.2, K.CC.3, K.CC.4, K.CC.5, K.CC.6, K.CC.7

Websites:	Brief Description
http://more.starfall.com/	Provides opportunities for practice with identifying numbers, counting, addition and subtraction.
http://www.drjean.org/	Songs and finger plays relating to various math concepts.
www.funbrain.com	Games: <ul style="list-style-type: none"> ● Bunny Count ● One False Move
www.internet4classrooms.com	Offers resources for all grades including; links to large math sites, interactive math activities, lesson plans, worksheet generators and more.
www.mathwire.com	Provides a plethora of resources for teachers including printable games and online games.
http://nlvm.usu.edu/en/nav/vlibrary.html	A library of interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis).
http://www.ixl.com/math/kindergarten	Skills organized by categories for every grade level.
http://www.brainpopjr.com/math/	Access several movie clips relating to every math standard.
http://www.jumpstart.com/	Students count, add, subtract, make equations, make patterns, sort objects and solve problems.
Math Literature: <ul style="list-style-type: none"> ● <i>Ten Black Dots</i> by Donald Crews ● <i>Fish Eyes</i> by Lois Ehlert ● <i>Anno's Counting Book</i> by Anno Mitsumasa ● <i>Chicka, Chicka, 1, 2, 3</i> by Bill Martin ● <i>Miss Bindergarten Celebrates the 100th Day of Kindergarten</i> by Joseph Slate 	
Math Board/Card Games: <ul style="list-style-type: none"> ● <i>Chutes and Ladders</i> by Milton Bradley ● <i>SORRY!</i> by Hasbro ● <i>Crazy Eights</i> ● <i>Number Bingo</i> 	

Content Area: Mathematics

Grade: Kindergarten

Domain (Unit Title): Measurement and Data

Cluster: K.MD

Cluster Summary:

- Describe and compare measurable attributes
- Classify objects and count the number of objects in each category

Primary Interdisciplinary Connections:

Science	measure/collect/compare data/physical characteristics of plants, humans, and other animals
Social Studies	survey data
Language Arts	math stories
Technology	interactive games/classroom websites/interactive whiteboard

21st Century Themes:

Global Awareness	Students work with word problems containing names of people and locations around the world to develop understanding of diverse cultures and lifestyles.
Communication	Students use mathematical arguments to articulate thoughts and ideas with peers and teachers.
Civic Literacy	Students understand the skills of mapping, gridding, and compass direction.

College and Career Readiness:

Mathematics programs develops a deep understanding of mathematics by building a strong foundation of number sense at the elementary level before moving into more advanced content. Students will learn to make sense of problems and persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of a structure, and look for and express regularity in repeated reasoning.

Learning Targets

Content Standards

Number

Common Core Standard for Mastery

K.MD.1

Describe measurable attributes of objects such as length or weight. Describe several measurable attributes of a single object.

K.MD.2	Directly compare two objects with a common measurable attribute ; to see which object has “more of” / “less of” the attribute and describe the difference (i.e., compare the height of two children and describe one child as taller/shorter).
K.MD.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. [Limit category counts to be less than or equal to 10.]
Number	Common Core Standard for Introduction
1.MD.3	Tell and set time to the hour using analog clocks.
2.MD.8	Identify coins (penny, nickel, dime and quarter).
Unit Essential Questions <ul style="list-style-type: none"> • How can you tell when one day is bigger than another? • How is height different from length? • How can we classify objects? 	Unit Enduring Understandings <i>Students will understand that...</i> <ul style="list-style-type: none"> • measurement helps to understand the world such as in cooking, playing and pretending. • people compare objects to communicate and collaborate with others (i.e., the heavy book or the long dress). • objects can be classified into different categories based on common attributes.
Unit Objectives <i>Students will know...</i> <ul style="list-style-type: none"> • objects have measurable attributes that can be compared. • objects can be classified and counted based on common attributes. 	Unit Objectives <i>Students will be able to...</i> <ul style="list-style-type: none"> • identify and describe common measurable attributes. • describe several measurable attributes of a single object. • directly compare two objects with a common measurable attribute. • classify, count and sort objects into categories.

OCEAN COUNTY MATHEMATICS CURRICULUM

Evidence of Learning

Suggested Formative Assessments:

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|-------------------------------|--------------------------------|
| • Teacher Observation | • Games |
| • Performance Assessment | • Anecdotal Records |
| • Exit Slips/Slate Assessment | • Oral Assessment/Conferencing |
| • Portfolios/Journals | • Daily Classwork |
| • Pre-Assessment | |

Suggested Summative Assessments:

- Tests
- Quizzes
- National/State/District Assessments

Suggested Modifications (ELLs, Special Education, Gifted and Talented):

Low Level Strategies

- Modified Classwork and Homework Assignments
- Teacher Tutoring
- Parent- Teacher Communication
- Anchor Charts and Visual Aids
- Flexible Grouping
- Teacher- Student Goal Setting
- Technology Integration
- Centers
- Response to Intervention

High Level Strategies

- Multi- Step and Higher Level Math Problems
- Enrich Problems
- Extend Activities
- Centers
- Student Driven Activities
- Student Choice Activities
- Peer Tutoring

Suggested activities for lesson plans:

Scavenger Hunt	Classify objects in the classroom by measurable attributes
Bottoms Up	Fill containers with objects and compare more or less
Measure Match	Go on a hunt to match the sizes you ask for

Teacher Notes:

- Read, analyze and create tally charts and graphs (K.MD.3)
- Integrate standards through morning meeting and calendar routines as applicable

Cluster:

- Describe and compare measurable attributes
- Classify objects and count the number of objects in each category

Content Standard: K.MD.1, K.MD.2, K.MD.3

Websites:	Brief Description
http://www.kidport.com/GradeK/Math/MeasureGeo/MathK_Tall.htm	Identify objects that are taller and shorter.
http://www.sesamestreet.org/game_player/-/pgpv/gameplayer/0/1d5fc163-c225-42da-bb59-75e763ba038f/measure_that_animal	Explores non-standard units of measurement.
http://www.drjean.org/	Songs and finger plays relating to various math concepts.
www.internet4classrooms.com	Offers resources for all grades including; links to large math sites, interactive math activities, lesson plans, worksheet generators and more.
www.mathwire.com	Provides a plethora of resources for teachers including printable games and online games.
http://www.ixl.com/math/kindergarten	Skills organized by categories for every grade level.
http://nlvm.usu.edu/en/nav/vlibrary.html	A library of interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis).
http://www.brainpopjr.com/math/	Access several movie clips relating to every math standard.
http://www.jumpstart.com/	Students count, add, subtract, make equations, make patterns, sort objects and solve problems.
Math Literature: <ul style="list-style-type: none"> • <i>Ten Beads Tall</i> by Pam Adams • <i>How Big Is a Foot?</i> by Myller Rolf • <i>Is it larger? Is it Smaller?</i> by Tana Hoban • <i>Inch by Inch</i> by Leo Lionni • <i>The Grouchy Lady Bug</i> by Eric Carle • <i>Measuring Penny</i> by Loreen Leedy • <i>The Button Box</i> by Margarete Reid 	

Content Area: Mathematics

Grade: Kindergarten

Domain (Unit Title): Geometry

Cluster: K.G

Cluster Summary:

- Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)
- Analyze, compare, create, and compose shapes

Primary Interdisciplinary Connections:

Science	identify shapes
Social Studies	maps/signs/symbols
Language Arts	math stories/puzzles
Technology	interactive games/classroom websites/interactive whiteboard/digital tools to gather and organize information

21st Century Themes:

Global Awareness	Students work with word problems containing names of people and locations around the world to develop understanding of diverse cultures and lifestyles.
Communication	Students use mathematical arguments to articulate thoughts and ideas with peers and teachers.
Civic Literacy	Students understand the skills of mapping, gridding, and compass direction.

College and Career Readiness:

Mathematics programs develops a deep understanding of mathematics by building a strong foundation of number sense at the elementary level before moving into more advanced content. Students will learn to make sense of problems and persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of a structure, and look for and express regularity in repeated reasoning.

Learning Targets

Content Standards

Number	Common Core Standard for Mastery
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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.
K.G.2	Correctly name shapes regardless of their orientations or overall size.
K.G.3	Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
K.G.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/ “corners”) and other attributes (e.g., having sides of equal length).
K.G.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
K.G.6	Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”
Number	Common Core Standard for Introduction
Unit Essential Questions <ul style="list-style-type: none"> • Where can we find shapes in our world? • What are the ways to describe where an object is? • What are all the things that you can think of that are round? What is the same about these things? • How are these shapes alike and how are they different? • Can you use shapes to create a new shape? 	Unit Enduring Understandings <i>Students will understand that...</i> <ul style="list-style-type: none"> • shapes help people to describe the world. • people communicate where things are by their location in space using words like next to, below, and in between.
Unit Objectives <i>Students will know...</i> <ul style="list-style-type: none"> • all objects have shape. • shapes have specific attributes. • shapes can be analyzed, compared and created. 	Unit Objectives <i>Students will be able to...</i> <ul style="list-style-type: none"> • identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). • describe shapes using position terms. • correctly name shapes regardless of orientation and size. • identify two and three dimensional shapes. • analyze and compare two and three dimensional shapes. • construct and draw shapes using a variety of materials. • compose simple shapes to form larger shapes.

OCEAN COUNTY MATHEMATICS CURRICULUM
Evidence of Learning

Suggested Formative Assessments:

- Teacher Observation
- Performance Assessment
- Exit Slips/Slate Assessment
- Portfolios/Journals
- Pre-Assessment
- Games
- Anecdotal Records
- Oral Assessment/Conferencing
- Daily Classwork

Suggested Summative Assessments:

- Tests
- Quizzes
- National/State/District Assessments

Suggested Modifications (ELLs, Special Education, Gifted and Talented):

Low Level Strategies

- Modified Classwork and Homework Assignments
- Teacher Tutoring
- Parent- Teacher Communication
- Anchor Charts and Visual Aids
- Flexible Grouping
- Teacher- Student Goal Setting
- Technology Integration
- Centers

- Response to Intervention

High Level Strategies

- Multi- Step and Higher Level Math Problems
- Enrich Problems
- Extend Activities
- Centers
- Student Driven Activities
- Student Choice Activities
- Peer Tutoring

Suggested activities for lesson plans:

Charting	Chart shapes you find around the room
Mix Match	Create matches using key math vocabulary
3D Art	Collaboratively create 3D shapes

Teacher Notes:

- Recognize, describe, create and extend patterns using shapes (K.G.4)
- Integrate standards through morning meeting and calendar routines as applicable

Cluster:

- Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
- Analyze, compare, create, and compose shapes.

Content Standard: K.G.1, K.G.2, K.G.3, K.G.4, K.G.5, K.G.6

Websites:	Brief Description
http://illuminations.nctm.org/ActivityDetail.aspx?ID=27	Students will manipulate basic shapes to form larger shapes or patterns.
http://www.drjean.org/	Songs and finger plays relating to various math concepts.
www.internet4classrooms.com	Interactive math activities, lesson plans, worksheet generators and more.
www.mathwire.com	Provides a plethora of resources for teachers including printable games and online games.
http://www.ixl.com/math/kindergarten	Skills organized by categories for every grade level.
http://nlvm.usu.edu/en/nav/vlibrary.html	A library of interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis).
http://www.brainpopjr.com/math/	Access several movie clips relating to every math standard.
http://www.jumpstart.com/	Students count, add, subtract, make equations, make patterns, sort objects and solve problems.
Math Literature: <ul style="list-style-type: none"> ● <i>The Greedy Triangle</i> by Marilyn Burns ● <i>Cubes, Cones, Cylinders and Spheres</i> by Tana Hoban ● <i>The Shape of Things</i> by Dayle Ann Dodds ● <i>Go Away Big Green Monster</i> by Ed Emberley ● <i>The M & M's Color Pattern Book</i> by Barbara Barbieri McGrath 	
Math Board/Card Games: <ul style="list-style-type: none"> ● <i>Guess Who?</i> by Milton Bradley ● <i>I SPY</i> Memory Game by Briarpatch ● <i>Candy Land</i> by Milton Bradley 	

OCEAN COUNTY MATHEMATICS CURRICULUM

Unit Overview

Content Area: Mathematics

Grade: Kindergarten

Domain (Unit Title): Operations and Algebraic Thinking

Cluster: K.OA

Cluster Summary:

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

Primary Interdisciplinary Connections:

Science	experiments/data
Social Studies	weather/economics
Language Arts	read and comprehend word problems
Technology	interactive games/classroom websites/interactive whiteboard

21st Century Themes:

Global Awareness	Students work with word problems containing names of people and locations around the world to develop understanding of diverse cultures and lifestyles.
Financial Literacy	Students use addition and subtraction to make appropriate financial choices.
Communication	Students use mathematical arguments to articulate thoughts and ideas with peers and teachers.

College and Career Readiness:

Mathematics programs develops a deep understanding of mathematics by building a strong foundation of number sense at the elementary level before moving into more advanced content. Students will learn to make sense of problems and persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of a structure, and look for and express regularity in repeated reasoning.

Learning Targets

Content Standards

Number	Common Core Standard for Mastery
K.OA.1	Represent addition and subtraction with objects, fingers, mental images, drawing, sounds (e.g., claps), acting out situations, verbal explanations, expressions or equations.

	[Drawings need not show details, but should show the mathematics in the problem.]
K.OA.2	Solve addition and subtraction word problems, and add and subtract within 10 by using objects or drawing to represent the problem.
K.OA.3	Decompose numbers less than or equal to 10 into two addends in more than one way by using objects or drawings and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
K.OA.4	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.5	Fluently add and subtract within 5.
Number	Common Core Standard for Introduction
Unit Essential Questions <ul style="list-style-type: none"> • What happens when two quantities are combined? • What happens when a set of objects is separated into different sets? 	Unit Enduring Understandings <i>Students will understand that...</i> <ul style="list-style-type: none"> • people combine quantities to find a total (i.e. number of boys and girls in the classroom). • people use subtraction to find out what is left over (i.e. number of toys left after giving some away).
Unit Objectives <i>Students will know...</i> <ul style="list-style-type: none"> • that addition is putting together and adding to. • that subtraction is taking apart and taking from. 	Unit Objectives <i>Students will be able to...</i> <ul style="list-style-type: none"> • represent addition and subtraction in a variety of ways. • solve addition and subtraction word problems. • add and subtract within 10 using manipulatives or drawings. • decompose numbers less than and equal to 10 in more than one way. • find complements of 10 (i.e. $1 + 9$, $2 + 8$, $3 + 7$, $4 + 6$, $5 + 5$). • use mental math strategies to solve addition and subtraction facts within 5.

OCEAN COUNTY MATHEMATICS CURRICULUM
Evidence of Learning

Suggested Formative Assessments:

- Teacher Observation
- Performance Assessment
- Exit Slips/Slate Assessment
- Portfolios/Journals
- Pre-Assessment
- Games
- Anecdotal Records
- Oral Assessment/Conferencing
- Daily Classwork

Suggested Summative Assessments:

- Tests
- Quizzes
- National/State/District Assessments

Suggested Modifications (ELLs, Special Education, Gifted and Talented):

Low Level Strategies

- Modified Classwork and Homework Assignments
- Teacher Tutoring
- Parent- Teacher Communication
- Anchor Charts and Visual Aids
- Flexible Grouping
- Teacher- Student Goal Setting
- Technology Integration
- Centers

- Response to Intervention

High Level Strategies

- Multi- Step and Higher Level Math Problems
- Enrich Problems
- Extend Activities
- Centers
- Student Driven Activities
- Student Choice Activities
- Peer Tutoring

Suggested activities for lesson plans:

Duck Pond	Drag each duck into a water tub one-by-one. Count each set and choose the correct number moving the sliders along the number line displayed
How many Petals?	Have students add or subtract the petals and estimate the outcome
Addition Stories	Create real addition stories involving their snack

Teacher Notes:

- Integrate standards through morning meeting and calendar routines as applicable

OCEAN COUNTY MATHEMATICS CURRICULUM RESOURCES

Math Domain: Operations and Algebraic Thinking

Grade: Kindergarten

Cluster:

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from

Content Standard: K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA.5

Websites:	Brief Description
http://more.starfall.com/	Provides opportunities for practice with identifying numbers, counting, addition and subtraction.
http://www.bbc.co.uk/schools/laac/numbers/ch1.shtml	Provides addition and subtraction practice with open number sentences.
http://www.drjean.org/	Songs and finger plays relating to various math concepts.
www.internet4classrooms.com	Offers resources for all grades including; links to large math sites, interactive math activities, lesson plans, worksheet generators and more.
www.mathwire.com	Provides a plethora of resources for teachers including printable games and online games.
http://www.ixl.com/math/kindergarten	Skills organized by categories for every grade level.
http://nlvm.usu.edu/en/nav/vlibrary.html	A library of interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis).
http://www.brainpopjr.com/math/	Access several movie clips relating to every math standard.
http://www.jumpstart.com/	Students count, add, subtract, make equations, make patterns, sort objects and solve problems.
Math Literature:	
<ul style="list-style-type: none"> ● <i>This Old Man</i> by Pam Adams ● <i>Remainder of One</i> by Elinor J. Pinczes ● <i>Domino Addition</i> by Lynette Long 	
Math Board/Card Games:	
<i>Dominoes</i> <ul style="list-style-type: none"> ● <i>Addition and Subtraction Top-It</i> (WAR) ● <i>Hi, Ho Cherry-O</i> by Parker Brothers 	

OCEAN COUNTY MATHEMATICS CURRICULUM

Unit Overview

Content Area: Mathematics

Grade: Kindergarten

Domain (Unit Title): Number and Operations in Base Ten

Cluster: K.NBT

Cluster Summary:

- Work with numbers 11-19 to gain foundations for place value.

Primary Interdisciplinary Connections:

Science	weather patterns/temperature
Social Studies	dates/timelines/calendar
Language Arts	morning meeting/circle time
Technology	interactive games/classroom website/interactive whiteboard

21st Century Themes:

Global Awareness	Students work with word problems containing names of people and locations around the world to develop understanding of diverse cultures and lifestyles.
Financial Literacy	Students use place value skills to understand and make appropriate financial choices.
Communication	Students use mathematical arguments to articulate thoughts and ideas with peers and teachers.

College and Career Readiness:

Mathematics programs develops a deep understanding of mathematics by building a strong foundation of number sense at the elementary level before moving into more advanced content. Students will learn to make sense of problems and persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of a structure, and look for and express regularity in repeated reasoning.

Learning Targets

Content Standards

Number

Common Core Standard for Mastery

K.NBT.1	Compose and decompose numbers from 11 to 19 into a group of ten and one(s) and record each composition or decomposition through a drawing or equation. (e.g., $18 = 10 + 8$). Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
Number	Common Core Standard for Introduction
Unit Essential Questions <i>Students will know...</i>	Unit Enduring Understandings <i>Students will understand that...</i>
<ul style="list-style-type: none"> • How can you represent the number 11? 12? 13? 14? 15? 16? 17? 18? 19? • Why do we group numbers into tens and ones? 	<ul style="list-style-type: none"> • numbers can be represented in a variety of ways. • numbers greater than 9 (11-19) are grouped into a ten and one(s).
Unit Objectives <i>Students will know...</i>	Unit Objectives <i>Students will be able to...</i>
<ul style="list-style-type: none"> • the foundation of the base- ten system. 	<ul style="list-style-type: none"> • compose and decompose numbers from 11 to 19 into a group of ten and one(s) with or without manipulatives. • record each composition or decomposition through a drawing or equation.

OCEAN COUNTY MATHEMATICS CURRICULUM
Evidence of Learning

Suggested Formative Assessments:

- | | |
|-------------------------------|--------------------------------|
| • Teacher Observation | • Games |
| • Performance Assessment | • Anecdotal Records |
| • Exit Slips/Slate Assessment | • Oral Assessment/Conferencing |
| • Portfolios/Journals | • Daily Classwork |
| • Pre-Assessment | |

Suggested Summative Assessments:

- Tests
- Quizzes
- National/State/District Assessments

Suggested Modifications (ELLs, Special Education, Gifted and Talented):

Low Level Strategies

- Modified Classwork and Homework Assignments
- Teacher Tutoring
- Parent- Teacher Communication
- Anchor Charts and Visual Aids
- Flexible Grouping
- Teacher- Student Goal Setting
- Technology Integration
- Centers
- Response to Intervention

High Level Strategies

- Multi- Step and Higher Level Math Problems
- Enrich Problems
- Extend Activities
- Centers
- Student Driven Activities
- Student Choice Activities
- Peer Tutoring

Suggested activities for lesson plans:

Bingo	Pair up for bingo match using numbers 11-19
Sound Off	Students count the numbers up to 20
Beyond Fingers	Teach students to use the numberline after 10 or to “put in their head”

Teacher Notes:

- Integrate standards through morning meeting and calendar routines as applicable

OCEAN COUNTY MATHEMATICS CURRICULUM RESOURCES

Math Domain: Number and Operations in Base Ten

Grade: Kindergarten

Cluster:

- Work with numbers 11-19 to gain foundations for place value

Content Standard: K.NBT.1

Websites:	Brief Description
http://more.starfall.com/	Provides opportunities for practice with identifying numbers, counting, addition and subtraction.
http://www.drjean.org/	Songs and finger plays relating to various math concepts.
www.internet4classrooms.com	Offers resources for all grades including; links to large math sites, interactive math activities, lesson plans, worksheet generators and more.
www.mathwire.com	Provides a plethora of resources for teachers including printable games and online games.
http://www.ixl.com/math/kindergarten	Skills organized by categories for every grade level.
http://nlvm.usu.edu/en/nav/vlibrary.html	A library of interactive, web-based virtual manipulatives or concept tutorials, mostly in the form of Java applets, for mathematics instruction (K-12 emphasis).
http://www.brainpopjr.com/math/	Access several movie clips relating to every math standard.
http://www.jumpstart.com/	Students count, add, subtract, make equations, make patterns, sort objects and solve problems.
Math Literature: <i>12 Ways to Get to 11</i> by Eve Merriam	<ul style="list-style-type: none">● Place Value