July 2022

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 1	Pacing: 12 weeks
Unit Title: Counting and Cardinality			

OVERVIEW OF UNIT*:*

Children conceptualize the value of a number by making models and connecting the number name and its symbol to the model.
Children use one-to-one correspondence to identify sets with the same number, more, or fewer.
Children will demonstrate knowledge of numbers from 6 to 9 by counting, linking the number of objects in a set to a symbol and word in oral and written form, and making sense of what a number means in terms of size or quantity.
Children will learn about numbers to 10 as they model with counters and build readiness for understanding place value.

Unit References	
Big Ideas	Essential Questions
How can you show, count, and write numbers 0 to 5? How can building and comparing sets help you compare numbers? How can you show, count, and write numbers 6 to 9? How can you show and compare numbers to 10?	• How can you show and count 1 and 2 with objects? • How can you count and write 1 and 2 with words and numbers? • How can you show and count 3 and 4 with objects? • How can you count 3 and 4 with words and numbers? • How can you show and count up to 5 objects? • How can you count and write up to 5 with words and numbers? • How can you use two sets of objects to show 5 in more than one way? • How do you know that the order of numbers is the same as a set of objects that is one larger? • How can you solve problems using the strategy make a model? • How can you identify and write 0 with words and numbers? • How can you use matching and counting to compare sets with the same number of objects?

	● How can you compare sets when the number of objects in one set is greater than the number of objects in the other set? ● How can you compare sets when the number of objects in one set is less than the number of objects in the other set? ● How can you make a model to solve problems using a matching strategy? ● How can you use a counting strategy to compare sets of objects? ● How can you show and count 6 objects? ● How can you count and write up to 6 with words and numbers? ● How can you show and count 7 objects? ● How can you count and write up to 7 with words and numbers? ● How can you show and count 8 objects? ● How can you count and write up to 8 with words and numbers? ● How can you show and count 9 objects? ● How can you count and write up to 9 with words and numbers? ● How can you solve problems using the strategy draw a picture? ● How can you show and count 10 objects? ● How can you count and write up to 10 with words and numbers? ● How can you use a drawing to make 10 from a given number? ● How can you count forward to 10 from a given number? ● How can you solve problems using the strategy make a model? ● How can you use counting strategies to compare sets of objects? ● How can you compare two numbers between 1 and 10?
Objectives	
● Students will be able to show, count, write words and numbers 0-10. ● Students will be able to use strategies such as making a model, counting and drawings to show x# objects up to 10.	
Assessment	
Formative Assessment: ● Lesson quick check ● Show What You Know ● Mid-chapter checkpoint	

Summative Assessment:
- Chapter review/test
- Chapter test
- Performance assessment task

Benchmark: Linkit!

Alternative:
- Digital personal math trainer (assessment animation, assessment video)

Key Vocabulary

One, two, match, three, four, five, pairs, and, larger, zero, fewer, more, compare, greater, less, same number, six, seven, eight, nine, ten

Resources & Materials

- Go Math! Teacher Edition: Chapter 1 Represent, Count, and Write Numbers 0 to 5
- Go Math! Teacher Edition: Chapter 2 Compare Numbers to 5
- Go Math! Teacher Edition: Chapter 3 Represent, Count, and Write Numbers 6 to 9
- Go Math! Teacher Edition: Chapter 4 Represent and Compare Numbers to 10
- Teacher-made materials

Technology Infusion

Teacher Technology:
- SmartBoard
- Google Classroom
- Think Central www.thinkcentral.com
- Go Math Professional Development Videos

Student Technology:
- Chromebooks
- Go Math
  - Interactive Student Edition
  - Personal Math Trainer
  - Math on the Spot video, Animated Math Model, Assessment, HMH Mega Math, iTools, Multimedia eGlossary)
- Seesaw

Activities:

- Students are using the Chromebooks to complete assignments through ThinkCentral.
- Students are using the Chromebooks to reflect on math concepts through the use of SeeSaw.

Standard	Standard Descriptions
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.P.C.1	Collaborate with peers by participating in interactive digital games or activities.

Interdisciplinary Integration

Activities:

- Students will apply reading and decoding strategies to independently complete math word problems.

Resources:

- Teacher Vision Cross Curricular Theme Map - https://www.teachervision.com/teaching-methods/curriculum-planning/7167.html
- Engineering Go For It! - http://egfi-k12.org/
- US Department of Education STEM - http://www.ed.gov/stem
- Intel STEM Resource - http://www.intel.com/content/www/us/en/education/k12/stem.html
- NASA STEM - http://www.nasa.gov/audience/foreducators/expeditions/stem/#.VYrO2flViko
- PBS STEM - http://www.pbs.org/teachers/stem/#content
- STEM Works - http://stem-works.com/activities
- What Every Education Should Know About Using Google by Shell Education
- Promoting Literacy in all Subjects by Glencoe - http://www.glencoe.com/sec/teachingtoday/subject/promoting_literacy.phtml
- International Literacy Association Read Write Think - http://www.readwritethink.org/

Standard	Standard Description
NJSLSA.R10	Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

21st Century Life Skills	
Activities: ● Students will explore time, money, and place value during our morning math routine and the students will be able to explain why these skills are essential to everyday life.	
Standard	**Standard Description**
9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Careers	
Activity: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Standard	**Standard Description**
CRP11	Use technology to enhance productivity.

Standard #	Standard Description
K.CC.A.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.B.4a	Understand the relationship between numbers and quantities; connect counting to cardinality. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
K.CC.B.4b	Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
K.CC.B.4c	Understand the relationship between numbers and quantities; connect counting to cardinality. Understand that each successive number name refers to a quantity that is one larger.
K.OA.A.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5= 2+3 and 5= 4+1).

K.CC.C.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

K.CC.B.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 to 20 count out that many objects.
K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.

K.CC.A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

K.OA.A.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.

Differentiation			
Special Education	English Language Learners (ELL)	Response to Intervention (RTI)	Enrichment
• Provide modifications & accommodations as listed in the student’s IEP • Position student near helping peer or have quick access to teacher • Modify or reduce assignments/tasks • Reduce length of assignment for different mode of delivery • Increase one-to-one time • Prioritize tasks • Use graphic organizers • Use online resources for skill building	• Provide text-to-speech • Use of translation dictionary or software • Provide graphic organizers • NJDOE resources - http://www.state.nj.us/education/aps/cccs/ELL.htm • Adapt a Strategy – Adjusting strategies for ESL students - http://www.teachersfirst.com/content/esl/adaptstrat.cfm	• Tiered interventions following RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Interventional Central - http://www.interventioncentral.org/	• Process should be modified: higher order thinking skills, open-ended thinking, discovery • Utilize project-based learning for greater depth of knowledge • Utilize exploratory connections to higher grade concepts • Contents should be modified: real world problems, audiences, deadlines, evaluations, transformations • Learning environments should be modified:

• Provide teacher notes • Use collaborative grouping strategies such as small groups • NJDOE resources - http://www.state.nj.us/education/specialed/ • Color coded materials • Use of manipulatives • Adaptive writing utensils • Highlight key information • Simplify word problems • Games for continued practice • Leveled Math Baskets			student-centered learning, independence, openness, complexity, groups varied • NJDOE resources - http://www.state.nj.us/education/aps/cccs/g_and_t_req.htm

July 2022

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 2	Pacing: 7 weeks
Unit Title: Operations and Algebraic Thinking			

OVERVIEW OF UNIT*:*

Children will explore addition through situations that require a joining action and make sense of decomposing numbers as they make number pairs. Children will rely less on models as they build an understanding of addition.
Children will explore subtraction through situations that involve the action of taking away. They will use problem situations, pictures and models. Children will rely less on models as they build an understanding of subtraction.

Unit References	
Big Ideas	Essential Questions
How can you show addition? How can you show subtraction?	• How can you show addition as adding to? • How can you show addition as putting together? How can you solve problems using the strategy act it out? • How can you use objects and drawings to solve addition word problems? • How can you use objects and drawings to solve addition word problems? • How can you use a drawing to find the number that makes a 10 from a given number? • How can you solve addition word problems and complete the addition sentence? • How can you model and write addition sentences for number pairs for sums to 5? • How can you model and write addition sentences for number pairs for each sum of 6 and 7?

	● How can you model and write addition sentences for number pairs for sums of 8? ● How can you model and write addition sentences for number pairs for sums of 9? ● How can you model and write addition sentences for number pairs for sums of 10? ● How can you show subtraction as taking from? ● How can you show subtraction as taking apart? ● How can you solve problems using the strategy act it out? ● How can you use objects and drawings to solve subtraction word problems? ● How can you solve subtraction word problems and complete the equation? ● How can you solve word problems using addition and subtraction?

Objectives

- Students will be able to model, show and write addition sentences for pairs of sums up to 10.
- Students will be able to use strategies to show subtraction such as using objects, drawings and acting it out.

Assessment

Formative Assessment:

- Lesson quick check
- Show What You Know
- Mid-chapter checkpoint

Summative Assessment:

- Chapter review/test
- Chapter test
- Performance assessment task

Benchmark: Linkit!

Alternative:

- Digital personal math trainer (assessment animation, assessment video)

Key Vocabulary:

add, is equal to, plus, pair, six, seven, eight, nine, ten, minus, subtract

Resources & Materials

- Go Math! Teacher Edition: Chapter 5 Addition

- Go Math! Teacher Edition: Chapter 6 Subtraction
- Teacher-made materials

Technology Infusion
Teacher Technology: ● SmartBoard ● Google Classroom ● Think Central www.thinkcentral.com ● Go Math Professional Development Videos **Student Technology:** ● Chromebooks ● Go Math ○ Interactive Student Edition ○ Personal Math Trainer ○ Math on the Spot video, Animated Math Model, Assessment, HMH Mega Math, iTools, Multimedia eGlossary) ● Seesaw **Activities:** ● Students are using the Chromebooks to complete assignments through ThinkCentral. ● Students are using the Chromebooks to reflect on math concepts through the use of SeeSaw.

Standard	Standard Descriptions
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.P.C.1	Collaborate with peers by participating in interactive digital games or activities.

Interdisciplinary Integration
Activities: ● Students will apply reading and decoding strategies to independently complete math word problems. **Resources:** ● Teacher Vision Cross Curricular Theme Map - https://www.teachervision.com/teaching-methods/curriculum-planning/7167.html ● Engineering Go For It! - http://egfi-k12.org/ ● US Department of Education STEM - http://www.ed.gov/stem ● Intel STEM Resource - http://www.intel.com/content/www/us/en/education/k12/stem.html ● NASA STEM - http://www.nasa.gov/audience/foreducators/expeditions/stem/#.VYrO2flViko ● PBS STEM - http://www.pbs.org/teachers/stem/#content ● STEM Works - http://stem-works.com/activities ● What Every Education Should Know About Using Google by Shell Education ● Promoting Literacy in all Subjects by Glencoe - http://www.glencoe.com/sec/teachingtoday/subject/promoting_literacy.phtml ● International Literacy Association Read Write Think - http://www.readwritethink.org/

Standard	Standard Description
NJSLSA.R10	Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

21st Century Life Skills
Activities: ● Students will explore time, money, and place value during our morning math routine and the students will be able to explain why these skills are essential to everyday life.

Standard	Standard Description
9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Careers	
Activity: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Standard	**Standard Description**
CRP11	Use technology to enhance productivity.

Standard #	Standard Description
K.OA.A.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
K.OA.A.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
K.OA.A.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5=2+3 and 5=4+1).
K.OA.A.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.A.5	Fluently add and subtract within 5

Differentiation			
Special Education	English Language Learners (ELL)	Response to Intervention (RTI)	Enrichment
• Provide modifications & accommodations as listed in the student's IEP • Position student near helping peer or have quick access to teacher • Modify or reduce assignments/tasks • Reduce length of assignment for different mode of delivery • Increase one-to-one time • Prioritize tasks • Use graphic organizers • Use online resources for skill building • Provide teacher notes • Use collaborative grouping strategies such as small groups • NJDOE resources - http://www.state.nj.us/education/specialed/ • Color coded materials • Use of manipulatives • Adaptive writing utensils • Highlight key information • Simplify word problems • Games for continued practice	• Provide text-to-speech • Use of translation dictionary or software • Provide graphic organizers • NJDOE resources - http://www.state.nj.us/education/aps/cccs/ELL.htm • Adapt a Strategy – Adjusting strategies for ESL students - http://www.teachersfirst.com/content/esl/adaptstrat.cfm	• Tiered interventions following RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Interventional Central - http://www.interventioncentral.org/	• Process should be modified: higher order thinking skills, open-ended thinking, discovery • Utilize project-based learning for greater depth of knowledge • Utilize exploratory connections to higher grade concepts • Contents should be modified: real world problems, audiences, deadlines, evaluations, transformations • Learning environments should be modified: student-centered learning, independence, openness, complexity, groups varied • NJDOE resources - http://www.state.nj.us/education/aps/cccs/g_and_t_req.htm

• Leveled Math Baskets/Centers			

Califon Public School
Curriculum

Subject: Math	**Grade: Kindergarten**	**Unit #: 3**	**Pacing: 9 weeks**
Unit Title: Numbers and Operations in Base Ten			

OVERVIEW OF UNIT:

Children will build on their understanding of numbers from 0 to 10 to conceptualize the numbers 11 to 19. They will use counters in ten frames so that they can see one set of ten and some more.
Children will use ten frames and the hundred chart to extend their experiences representing, counting, and writing numbers to 20 and beyond.

Unit References	
Big Ideas	Essential Questions
How can you show, count, and write numbers 11 to19? How can you show, count, and write numbers to 20 and beyond?	• How can you use objects to show 11 and 12 as ten ones and some more ones? • How can you count and write 11 and 12 with words and numbers? • How can you use objects to show 13 and 14 objects with words and numbers? • How can you use objects to show 15 as ten ones and some more ones and show 15 as a number? • How can you solve problems using the strategy draw a picture? • How can you use objects to show 16 and 17 as ten ones and some more ones? • How can you count and write 16 and 17 with words and numbers?

	• How can you use objects to show 18 and 19 as ten ones and some more ones? • How can you count and write 18 and 19 with words and numbers? • How can you show and count 20 objects? • How can you count and write up to 20 with words and numbers? • How can you count forward to 20 from a given number? • How can you solve problems using the strategy make a model? • How does the order of numbers help you count to 50 by ones? • How does the order of numbers help you to count to 100 by ones? • How can you count to 100 by tens on a hundred chart? • How can you use sets of tens to count to 100?

Objectives

- Students will be able to model, show and write numbers 11-20.
- Students will be able to count forward to 20, 50 and 100 using order of numbers and sets of 10.

Assessment

Formative Assessment:

- Lesson quick check
- Show What You Know
- Mid-chapter checkpoint

Summative Assessment:

- Chapter review/test
- Chapter test
- Performance assessment task

Benchmark: Linkit!

Alternative:

- Digital personal math trainer (assessment animation, assessment video)

Key Vocabulary

eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, ones, ten, twenty, fifty, one hundred

Resources & Materials

- Go Math! Teacher Edition: Chapter 7 Represent, Count, and Write 11 to 19
- Go Math! Teacher Edition: Chapter 8 Represent, Count, and Write 20 and Beyond

Technology Infusion
Teacher Technology: ● SmartBoard ● Google Classroom ● Think Central www.thinkcentral.com ● Go Math Professional Development Videos **Student Technology:** ● Chromebooks ● Go Math ○ Interactive Student Edition ○ Personal Math Trainer ○ Math on the Spot video, Animated Math Model, Assessment, HMH Mega Math, iTools, Multimedia eGlossary) ● Seesaw **Activities:** ● Students are using the Chromebooks to complete assignments through ThinkCentral. ● Students are using the Chromebooks to reflect on math concepts through the use of SeeSaw.

Standard	Standard Descriptions
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

8.1.P.C.1	Collaborate with peers by participating in interactive digital games or activities.

Interdisciplinary Integration	
Activities: ● Students will apply reading and decoding strategies to independently complete math word problems. **Resources:** ● Teacher Vision Cross Curricular Theme Map - https://www.teachervision.com/teaching-methods/curriculum-planning/7167.html ● Engineering Go For It! - http://egfi-k12.org/ ● US Department of Education STEM - http://www.ed.gov/stem ● Intel STEM Resource - http://www.intel.com/content/www/us/en/education/k12/stem.html ● NASA STEM - http://www.nasa.gov/audience/foreducators/expeditions/stem/#.VYrO2flViko ● PBS STEM - http://www.pbs.org/teachers/stem/#content ● STEM Works - http://stem-works.com/activities ● What Every Education Should Know About Using Google by Shell Education ● Promoting Literacy in all Subjects by Glencoe - http://www.glencoe.com/sec/teachingtoday/subject/promoting_literacy.phtml ● International Literacy Association Read Write Think - http://www.readwritethink.org/	
Standard	**Standard Description**
NJSLSA.R10	Read and com[rehend complex literary and informational texts independently and proficiently with scaffolding as needed.

21st Century Life Skills

Activities: ● Students will explore time, money, and place value during our morning math routine and the students will be able to explain why these skills are essential to everyday life.	
Standard	**Standard Description**
9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Careers	
Activity: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Standard	**Standard Description**
CRP11	Use technology to enhance productivity.

Standard #	**Standard Description**
K.CC.A.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.NBT.A.1	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

K.CC.A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

K.CC.B.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.C.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.

K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.

Differentiation			
Special Education	English Language Learners (ELL)	Response to Intervention (RTI)	Enrichment
• Provide modifications & accommodations as listed in the student's IEP • Position student near helping peer or have quick access to teacher • Modify or reduce assignments/tasks • Reduce length of assignment for different mode of delivery • Increase one-to-one time • Prioritize tasks • Use graphic organizers • Use online resources for skill building • Provide teacher notes • Use collaborative grouping strategies such as small groups • NJDOE resources - http://www.state.nj.us/education/specialed/	• Provide text-to-speech • Use of translation dictionary or software • Provide graphic organizers • NJDOE resources - http://www.state.nj.us/education/aps/cccs/ELL.htm • Adapt a Strategy – Adjusting strategies for ESL students - http://www.teachersfirst.com/content/esl/adaptstrat.cfm	• Tiered interventions following RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Interventional Central - http://www.interventioncentral.org/	• Process should be modified: higher order thinking skills, open-ended thinking, discovery • Utilize project-based learning for greater depth of knowledge • Utilize exploratory connections to higher grade concepts • Contents should be modified: real world problems, audiences, deadlines, evaluations, transformations • Learning environments should be modified: student-centered learning, independence, openness, complexity, groups varied • NJDOE resources - http://www.state.nj.us/education/aps/cccs/g_and_t_req.htm

July 2022

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 4	Pacing: 4 weeks
Unit Title: Geometry			

OVERVIEW OF UNIT*:*

Children will learn the characteristic properties of geometrical shapes, which will form the basis of higher level thinking and help students gain a practical grasp of the mathematics of space.
Children will learn the characteristic properties of geometrical shapes, which will form the basis of higher level thinking and help students gain a practical grasp of the mathematics of space.

Unit References	
Big Ideas	Essential Questions
How can you identify, name, and describe two-dimensional shapes? How can identifying and describing shapes help you sort them?	• How can you identify and name circles? • How can you describe circles? • How can you identify and name squares? • How can you describe squares? • How can you identify and name triangles? • How can you describe triangles? • How can you identify and name rectangles? • How can you describe rectangles? • How can you identify and name hexagons? • How can you describe hexagons? • How can you use the words alike and different to compare two-dimensional shapes? • How can you solve problems using the strategy draw a picture? • How can you show which shapes stack, roll, or slide? • How can you identify, name, and describe spheres?

	● How can you identify, name, and describe cubes? ● How can you identify, name, and describe cylinders? ● How can you identify, name, and describe cones? ● How can you solve problems using the strategy use logical reasoning? ● How can you model shapes in the real world? ● How can you use the terms above and below to describe shapes in the environment? ● How can you use the terms beside and next to to describe shapes in the environment? ● How can you use the terms in front of and behind to describe shapes in the environment?

Objective:

- Students will be able to identify, name and describe two-dimensional shapes.
- Students will be able to use spatial terms to describe two-dimensional shapes.

Assessment:

Formative Assessment:

- Lesson quick check
- Show What You Know
- Mid-chapter checkpoint

Summative Assessment:

- Chapter review/test
- Chapter test
- Performance assessment task

Benchmark: Linkit!

Alternative:

- Digital personal math trainer (assessment animation, assessment video)

Key Vocabulary

alike, circle, curve, different, hexagon, rectangle, sides, square, triangle, vertex, corner, vertices, above, behind, below, beside, next to, in front of, cone, cube, curved surface, cylinder, flat surface, roll, slide, sphere, stack, three-dimensional shapes

Resources & Materials

- Go Math! Teacher Edition: Chapter 9 Identify and Describe Two-Dimensional Shapes
- Go Math! Teacher Edition: Chapter 10 Identify and Describe Three-Dimensional Shapes

Technology Infusion
Teacher Technology: ● SmartBoard ● Google Classroom ● Think Central www.thinkcentral.com ● Go Math Professional Development Videos **Student Technology:** ● Chromebooks ● Go Math ○ Interactive Student Edition ○ Personal Math Trainer ○ Math on the Spot video, Animated Math Model, Assessment, HMH Mega Math, iTools, Multimedia eGlossary) ● Seesaw **Activities:** ● Students are using the Chromebooks to complete assignments through ThinkCentral. ● Students are using the Chromebooks to reflect on math concepts through the use of SeeSaw.

Standard	Standard Descriptions
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.P.C.1	Collaborate with peers by participating in interactive digital games or activities.

Interdisciplinary Integration	
Activities: ● Students will apply reading and decoding strategies to independently complete math word problems. **Resources:** ● Teacher Vision Cross Curricular Theme Map - https://www.teachervision.com/teaching-methods/curriculum-planning/7167.html ● Engineering Go For It! - http://egfi-k12.org/ ● US Department of Education STEM - http://www.ed.gov/stem ● Intel STEM Resource - http://www.intel.com/content/www/us/en/education/k12/stem.html ● NASA STEM - http://www.nasa.gov/audience/foreducators/expeditions/stem/#.VYrO2flViko ● PBS STEM - http://www.pbs.org/teachers/stem/#content ● STEM Works - http://stem-works.com/activities ● What Every Education Should Know About Using Google by Shell Education ● Promoting Literacy in all Subjects by Glencoe - http://www.glencoe.com/sec/teachingtoday/subject/promoting_literacy.phtml ● International Literacy Association Read Write Think - http://www.readwritethink.org/	
Standard	**Standard Description**
NJSLSA.R10	Read and com[rehend complex literary and informational texts independently and proficiently with scaffolding as needed.

21st Century Life Skills	
Activities: ● Students will explore time, money, and place value during our morning math routine and the students will be able to explain why these skills are essential to everyday life.	
Standard	**Standard Description**
9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Careers	
Activity: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Standard	**Standard Description**
CRP11	Use technology to enhance productivity.

Standard #	Standard Description
K.G.A.2	Correctly name shapes regardless of their orientations or overall size
K.G.B.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.B.6	Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle*?"

K.G.B.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
K.G.A.3	Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
K.G.A.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*.

Differentiation			
Special Education	English Language Learners (ELL)	Response to Intervention (RTI)	Enrichment
• Provide modifications & accommodations as listed in the student's IEP • Position student near helping peer or have quick access to teacher • Modify or reduce assignments/tasks • Reduce length of assignment for different mode of delivery • Increase one-to-one time • Prioritize tasks • Use graphic organizers • Use online resources for skill building • Provide teacher notes • Use collaborative grouping strategies such as small groups • NJDOE resources - http://www.state.nj.us/education/specialed/	• Provide text-to-speech • Use of translation dictionary or software • Provide graphic organizers • NJDOE resources - http://www.state.nj.us/education/aps/cccs/ELL.htm • Adapt a Strategy – Adjusting strategies for ESL students - http://www.teachersfirst.com/content/esl/adaptstrat.cfm	• Tiered interventions following RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Interventional Central - http://www.interventioncentral.org/	• Process should be modified: higher order thinking skills, open-ended thinking, discovery • Utilize project-based learning for greater depth of knowledge • Utilize exploratory connections to higher grade concepts • Contents should be modified: real world problems, audiences, deadlines, evaluations, transformations • Learning environments should be modified: student-centered learning, independence, openness, complexity, groups varied • NJDOE resources - http://www.state.nj.us/education/aps/cccs/g_and_t_req.htm

July 2022

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 5	Pacing: 7 weeks
Unit Title: Measurement			

OVERVIEW OF UNIT*:*

Children will reason abstractly and quantitatively in the context of measurement. They will compare objects, discuss their comparisons, and measure objects with nonstandard units of measurement. This will provide a foundation for how children will interpret measurements when using standard units.
Children will model with mathematics by displaying data and creating categories for data.

Unit References	
Big Ideas	Essential Questions
How can comparing objects help you measure them? How does sorting help you display information?	• How can you compare the lengths of two objects? • How can you compare the heights of two objects? • How can you solve problems using the strategy draw a picture? • How can you compare the weights of two objects? • How can you describe several ways to measure one object? • How can you classify and count objects by color? • How can you classify and count objects by shape? • How can you classify and count objects by size? • How can you make a graph to count objects that have been classified into categories? • How can you read a graph to count objects that have been classified into categories?
Objectives:	
• Students will be able to compare objects using length, height, and weight. • Students will be able to classify and count objects by color, shape and size.	

July 2022

Assessment
Formative Assessment: ● Lesson quick check ● Show What You Know ● Mid-chapter checkpoint **Summative Assessment:** ● Chapter review/test ● Chapter test ● Performance assessment task **Benchmark:** Linkit! **Alternative:** ● Digital personal math trainer (assessment animation, assessment video)
Key Vocabulary
heavier, lighter, longer, shorter, taller, same height, same length, same weight, red, blue, green, yellow, classify, category, shape, size, small big, graph
Resources & Materials
● Go Math! Teacher Edition: Chapter 11 Measurement ● Go Math! Teacher Edition: Chapter 12 Classify and Sort Data

Technology Infusion
Teacher Technology: ● SmartBoard ● Google Classroom ● Think Central www.thinkcentral.com ● Go Math Professional Development Videos **Student Technology:** ● Chromebooks ● Go Math ○ Interactive Student Edition ○ Personal Math Trainer

- Math on the Spot video, Animated Math Model, Assessment, HMH Mega Math, iTools, Multimedia eGlossary)
- Seesaw

Activities:

- Students are using the Chromebooks to complete assignments through ThinkCentral.
- Students are using the Chromebooks to reflect on math concepts through the use of SeeSaw.

Standard	Standard Descriptions
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.P.C.1	Collaborate with peers by participating in interactive digital games or activities.

Interdisciplinary Integration

Activities:

- Students will apply reading and decoding strategies to independently complete math word problems.

Resources:

- Teacher Vision Cross Curricular Theme Map - https://www.teachervision.com/teaching-methods/curriculum-planning/7167.html
- Engineering Go For It! - http://egfi-k12.org/
- US Department of Education STEM - http://www.ed.gov/stem
- Intel STEM Resource - http://www.intel.com/content/www/us/en/education/k12/stem.html
- NASA STEM - http://www.nasa.gov/audience/foreducators/expeditions/stem/#.VYrO2flViko
- PBS STEM - http://www.pbs.org/teachers/stem/#content
- STEM Works - http://stem-works.com/activities
- What Every Education Should Know About Using Google by Shell Education
- Promoting Literacy in all Subjects by Glencoe - http://www.glencoe.com/sec/teachingtoday/subject/promoting_literacy.phtml
- International Literacy Association Read Write Think - http://www.readwritethink.org/

Standard	Standard Description
NJSLSA.R10	Read and comprehend complex literary and informational texts independently and proficiently with scaffolding as needed.

21st Century Life Skills	
Activities: ● Students will explore time, money, and place value during our morning math routine and the students will be able to explain why these skills are essential to everyday life.	
Standard	**Standard Description**
9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Careers	
Activity: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Standard	**Standard Description**
CRP11	Use technology to enhance productivity.

Standard #	**Standard Description**
K.MD.A.2	Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter*.
K.MD.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

K.MD.B.3	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Differentiation			
Special Education	English Language Learners (ELL)	Response to Intervention (RTI)	Enrichment
• Provide modifications & accommodations as listed in the student's IEP • Position student near helping peer or have quick access to teacher • Modify or reduce assignments/tasks • Reduce length of assignment for different mode of delivery • Increase one-to-one time • Prioritize tasks • Use graphic organizers • Use online resources for skill building • Provide teacher notes • Use collaborative grouping strategies such as small groups • NJDOE resources - http://www.state.nj.us/education/specialed/	• Provide text-to-speech • Use of translation dictionary or software • Provide graphic organizers • NJDOE resources - http://www.state.nj.us/education/aps/cccs/ELL.htm • Adapt a Strategy – Adjusting strategies for ESL students - http://www.teachersfirst.com/content/esl/adaptstrat.cfm	• Tiered interventions following RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Interventional Central - http://www.interventioncentral.org/	• Process should be modified: higher order thinking skills, open-ended thinking, discovery • Utilize project-based learning for greater depth of knowledge • Utilize exploratory connections to higher grade concepts • Contents should be modified: real world problems, audiences, deadlines, evaluations, transformations • Learning environments should be modified: student-centered learning, independence, openness, complexity, groups varied • NJDOE resources - http://www.state.nj.us/education/aps/cccs/g_and_t_req.htm