Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 1	Pacing: 12 weeks

Unit Title: Counting and Cardinality 0-10

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 0 to 5 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.

Big Ideas

- **Know number names and the count sequence.**
  - Count to 100 by ones and by tens.
  - Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
  - 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).
- **Count to tell the number of objects.**
  - 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.
    - 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.
    - Understand that each successive number name refers to a quantity that is one larger.
  - 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.
- **Compare numbers.**
  - 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.
  - Compare two numbers between 1 and 10 presented as written numerals.

Essential Questions

- How can you show and count numbers from 0-10 with objects?
- How can you count and write 0-10 with words and numbers?
- How can you use two sets of objects to show numbers 0-10 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 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?

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:

- GoMath Chapters 1,2,3,4,5,6,7,8,9,10
- Lesson quick check
- Show What You Know
- Mid-chapter checkpoint

Benchmark:

- Linkit!

Alternative:

- Splash Learn

Summative Assessment:

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

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

- GOMATH
- Teacher-made materials

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom
- Think Central www.thinkcentral.com
- Go Math Professional Development Videos

Student Technology:

- Chromebooks
- Go Math
    - Interactive Student Edition
    - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards

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	Student Learning Objectives
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers	
Activities: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Practice	**Description**
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
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 (*Clarification: Include groups with up to ten objects)*
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
Students with 504 plans
• Preferential seating • Guided notes • Extra time • Teacher check-ins • Use graphic organizers • Redirect attention • Prioritize tasks • Small group testing • Provide modifications & accommodations per individual student's 504 plan
Special Education
• Provide modifications & accommodations as listed in the student's IEP • Position the student near a helping peer or have quick access to the teacher • Modify or reduce assignments/tasks • Reduce the length of the assignment for different modes 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/
Response to Intervention (RTI)
• Tiered interventions following the RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Intervention Central - http://www.interventioncentral.org/
English Language Learners (ELL)
• Provide text-to-speech • Use of a 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

Enrichment
● 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, and groups should be varied ● NJDOE resources

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 2	Pacing: 12 weeks

Unit Title: Operations and Algebraic Thinking

OVERVIEW OF UNIT:

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

Big Ideas

- **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
  - Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings2 , sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
  - Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
  - 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).
  - 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.
  - Demonstrate fluency for addition and subtraction within 5.

Essential Questions

- 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 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 up to 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

Benchmark:

- Linkit!

Alternative:

- Splash Learn

Summative Assessment:

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

Key Vocabulary

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

Resources & Materials

- Go Math Chapters 11-12
- Teacher-made materials

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom
- Think Central www.thinkcentral.com
- Go Math Professional Development Videos

Student Technology:

- Chromebooks
- Go Math
  - Interactive Student Edition
  - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards

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	Student Learning Objectives
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers

Activities:

- Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.

Practice	Description
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and

	organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
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
Students with 504 plans
• Preferential seating • Guided notes • Extra time • Teacher check-ins • Use graphic organizers • Redirect attention • Prioritize tasks • Small group testing • Provide modifications & accommodations per individual student's 504 plan
Special Education
• Provide modifications & accommodations as listed in the student's IEP • Position the student near a helping peer or have quick access to the teacher • Modify or reduce assignments/tasks • Reduce the length of the assignment for different modes 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/

Response to Intervention (RTI)

- Tiered interventions following the RTI framework
- Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/
- Intervention Central - http://www.interventioncentral.org/

English Language Learners (ELL)

- Provide text-to-speech
- Use of a 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

Enrichment

- 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, and groups should be varied
- NJDOE resources

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 3	Pacing: 4 weeks

Unit Title: Numbers and Operations in Base Ten- 0-20

OVERVIEW OF UNIT:

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

Big Ideas

- **Know number names and the count sequence.**
  - Count to 100 by ones and by tens.
  - Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
  - 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).
- **Count to tell the number of objects.**
  - 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.
    - 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.
    - Understand that each successive number name refers to a quantity that is one larger.
  - 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.
- **Compare numbers.**
  - 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.
  - Compare two numbers between 1 and 10 presented as written numerals.

Essential Questions

- 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

Benchmark:

- Linkit!

Alternative:

- Splash Learn

Summative Assessment:

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

Key Vocabulary

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

Resources & Materials

- Go Math Chapters 13 & 14
- Teacher-made materials

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom
- Think Central www.thinkcentral.com

- Go Math Professional Development Videos

Student Technology:

- Chromebooks
- Go Math
  - Interactive Student Edition
  - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards

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	Student Learning Objectives

9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers	
Activities: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Practice	**Description**
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
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. *(Clarification: Include groups with up to ten objects)*
K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.

Differentiation
Students with 504 plans
● Preferential seating ● Guided notes

- Extra time
- Teacher check-ins
- Use graphic organizers
- Redirect attention
- Prioritize tasks
- Small group testing
- Provide modifications & accommodations per individual student's 504 plan

Special Education

- Provide modifications & accommodations as listed in the student's IEP
- Position the student near a helping peer or have quick access to the teacher
- Modify or reduce assignments/tasks
- Reduce the length of the assignment for different modes 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/

Response to Intervention (RTI)

- Tiered interventions following the RTI framework
- Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/
- Intervention Central - http://www.interventioncentral.org/

English Language Learners (ELL)

- Provide text-to-speech
- Use of a 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

Enrichment

- 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, and groups should be varied
- NJDOE resources

Califon Public School
Curriculum

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

Unit Title: Operations and Algebraic Thinking- 0-20 and counting to 100

OVERVIEW OF UNIT:

Students will explore addition through situations that require a joining action and make sense of decomposing numbers as they make number pairs.
Students will rely less on models as they build an understanding of addition.
Students will explore subtraction through situations that involve the action of taking away.
Students will use problem situations, pictures and models.
Students will rely less on models as they build an understanding of subtraction.
Students will be able to count to 100 by 1's and 10's.

Big Ideas

- **Know number names and the count sequence.**
  - Count to 100 by ones and by tens.
  - Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
  - 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).
- **Count to tell the number of objects.**
  - 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.
    - 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.
    - Understand that each successive number name refers to a quantity that is one larger.
  - 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.
- **Compare numbers.**
  - 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.
  - Compare two numbers between 1 and 10 presented as written numerals.

Essential Questions
● 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 solve addition word problems and complete the addition sentence? ● How can you model and write addition sentences for number pairs for sums up to 20? ● 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? ● How can you count forwards and backwards to 100 by 1's? ● How can you count to 10 to 100?

Objectives
● Students will be able to model, show and write addition sentences for pairs of sums up to 20. ● Students will be able to use strategies to show subtraction such as using objects, drawings and acting it out. ● Students will be able to count forward and backwards to 100 by 1's.

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:** ● Splash Learn

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

Resources & Materials
● Go Math Chapters 15 & 16 ● Teacher-made materials

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom
- Think Central www.thinkcentral.com
- Go Math Professional Development Videos

Student Technology:

- Chromebooks
- Go Math
  - Interactive Student Edition
  - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards	
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	**Student Learning Objectives**
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers	
Activities: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Practice	**Description**
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
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. *(Clarification: Include groups with up to ten objects)*
K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.

Differentiation
Students with 504 plans
• Preferential seating • Guided notes • Extra time • Teacher check-ins • Use graphic organizers • Redirect attention • Prioritize tasks • Small group testing • Provide modifications & accommodations per individual student's 504 plan
Special Education
• Provide modifications & accommodations as listed in the student's IEP • Position the student near a helping peer or have quick access to the teacher • Modify or reduce assignments/tasks • Reduce the length of the assignment for different modes 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/
Response to Intervention (RTI)
• Tiered interventions following the RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Intervention Central - http://www.interventioncentral.org/
English Language Learners (ELL)
• Provide text-to-speech • Use of a 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
Enrichment
• 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, and groups should be varied
- NJDOE resources

Califon Public School
Curriculum

Subject:	Grade:	Unit #:	Pacing:
Math	**Kindergarten**	**5**	**5 weeks**

Unit Title: Geometry

OVERVIEW OF UNIT:

Students 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.
Students 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.

Big Ideas

- **Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)**.
  - 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.
  - . Correctly name shapes regardless of their orientations or overall size.
  - Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
- **Analyze, compare, create, and compose shapes.**
  - 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).
  - Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
  - Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

Essential Questions

- 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?

Objectives

- 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

Benchmark:

- Linkit!

Alternative:

- Splash Learn

Summative Assessment:

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

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 Chapter 16 & 18
- Teacher-made materials

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom

- Think Central www.thinkcentral.com
- Go Math Professional Development Videos

Student Technology:

- Chromebooks
- Go Math
  - Interactive Student Edition
  - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards

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	Student Learning Objectives

9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers	
Activities: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Practice	**Description**
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
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
Students with 504 plans
● Preferential seating ● Guided notes ● Extra time

- Teacher check-ins
- Use graphic organizers
- Redirect attention
- Prioritize tasks
- Small group testing
- Provide modifications & accommodations per individual student's 504 plan

Special Education

- Provide modifications & accommodations as listed in the student's IEP
- Position the student near a helping peer or have quick access to the teacher
- Modify or reduce assignments/tasks
- Reduce the length of the assignment for different modes 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/

Response to Intervention (RTI)

- Tiered interventions following the RTI framework
- Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/
- Intervention Central - http://www.interventioncentral.org/

English Language Learners (ELL)

- Provide text-to-speech
- Use of a 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

Enrichment

- 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, and groups should be varied
- NJDOE resources

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 6	Pacing: 3 weeks

Unit Title: Measurement

OVERVIEW OF UNIT:

Students will reason abstractly and quantitatively in the context of measurement.
Students 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.

Big Ideas

- **Describe and compare measurable attributes.**
  - Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
  - 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.
- **Classify objects and count the number of objects in each category.**
  - Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Essential Questions

- 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.

Assessment

Formative Assessment:
- Lesson quick check
- Show What You Know
- Mid-chapter checkpoint

Benchmark:
- Linkit!

Alternative:
- Splash Learn

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

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 Chapter 19
- Teacher-made materials

Technology Infusion

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

Student Technology:
- Chromebooks
- Go Math
  - Interactive Student Edition
  - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards

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	Student Learning Objectives
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers

Activities:

- Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.

Practice	Description
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice

MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
Standard #	**Standard Description**
K.M.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.M.A.1	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
K..DL.A.1	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Differentiation
Students with 504 plans
• Preferential seating • Guided notes • Extra time • Teacher check-ins • Use graphic organizers • Redirect attention • Prioritize tasks • Small group testing • Provide modifications & accommodations per individual student's 504 plan
Special Education
• Provide modifications & accommodations as listed in the student's IEP • Position the student near a helping peer or have quick access to the teacher • Modify or reduce assignments/tasks • Reduce the length of the assignment for different modes 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/
Response to Intervention (RTI)
• Tiered interventions following the RTI framework • Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/ • Intervention Central - http://www.interventioncentral.org/
English Language Learners (ELL)
• Provide text-to-speech

- Use of a 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

Enrichment

- 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, and groups should be varied
- NJDOE resources

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 7	Pacing: 2 weeks

Unit Title: Data Literacy

OVERVIEW OF UNIT:

Students will model with mathematics by displaying data and creating categories for data.

Big Ideas

- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Essential Questions

- 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.

Assessment

Formative Assessment:

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

Benchmark:

- Linkit!

Alternative:

- Splash Learn

Summative Assessment:

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

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 Chapter 20 ● Teacher-made materials

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom
- Think Central www.thinkcentral.com
- Go Math Professional Development Videos

Student Technology:

- Chromebooks
- Go Math
  - Interactive Student Edition
  - Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards	
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	**Student Learning Objectives**
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers	
Activities: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Practice	**Description**
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
Standard #	**Standard Description**
K..DL.A.1	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Differentiation
Students with 504 plans
● Preferential seating

- Guided notes
- Extra time
- Teacher check-ins
- Use graphic organizers
- Redirect attention
- Prioritize tasks
- Small group testing
- Provide modifications & accommodations per individual student's 504 plan

Special Education

- Provide modifications & accommodations as listed in the student's IEP
- Position the student near a helping peer or have quick access to the teacher
- Modify or reduce assignments/tasks
- Reduce the length of the assignment for different modes 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/

Response to Intervention (RTI)

- Tiered interventions following the RTI framework
- Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/
- Intervention Central - http://www.interventioncentral.org/

English Language Learners (ELL)

- Provide text-to-speech
- Use of a 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

Enrichment

- 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, and groups should be varied
- NJDOE resources

Califon Public School
Curriculum

Subject: Math	Grade: Kindergarten	Unit #: 8	Pacing: 3 weeks

Unit Title: Money

OVERVIEW OF UNIT:

Children will understand that certain objects are coins and dollar bills, and that coins and dollar bills represent money. Children will identify the values of all the US coins and the one-dollar bill.

Big Ideas

- Identifying coins
- Values of coins

Essential Questions

- How can you tell the different coins from one another?
- What is the value of the US coins?
- How much is a penny worth?
- How much is a nickel worth?
- How much is a dime worth?
- How much is a quarter worth?
- How much is a dollar bill worth?
- How can you represent the number 8 in coins?

Objectives

- Students will be able to compare coins and identify their name and value.
- Students will represent the value of each coin.

Assessment

Formative Assessment:

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

Benchmark:

- Linkit!

Alternative:

- Splash Learn

Summative Assessment:

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

Key Vocabulary

dollar, cent, penny, nickel, dime, quarter, one-dollar bill

Resources & Materials
• GOMATH • Teacher-made materials

Technology Infusion

Teacher Technology:
• Promethean Board
• Google Classroom
• Think Central www.thinkcentral.com
• Go Math Professional Development Videos
 	
Student Technology:
• Chromebooks
• Go Math
  ○ Interactive Student Edition
  ○ Math on the Spot video, Assessment, 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 Description
8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

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 Educator 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
NJSLS-ELA L.RF.K.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

21st Century Life Skills Standards	
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	**Student Learning Objectives**
9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

Careers	
Activities: ● Students will demonstrate math concepts using Seesaw on their Chromebook to show their math thinking.	
Practice	**Description**
Use technology to enhance productivity increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Standards for Mathematical Practice	
MP #	Practice
1	Make sense of problems and persevere in solving them.
4	Model with mathematics.
5	Use appropriate tools strategically.

Standards	
Standard #	**Standard Description**
K.M.B.3	Understand that certain objects are coins and dollar bills, and that coins and dollar bills represent money. Identify the values of all U.S. coins and the one-dollar bill.
K..DL.A.1	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (*Clarification: Limit category units to be less than or equal to 10)*

Differentiation
Students with 504 plans
● Preferential seating ● Guided notes ● Extra time

- Teacher check-ins
- Use graphic organizers
- Redirect attention
- Prioritize tasks
- Small group testing
- Provide modifications & accommodations per individual student's 504 plan

Special Education

- Provide modifications & accommodations as listed in the student's IEP
- Position the student near a helping peer or have quick access to the teacher
- Modify or reduce assignments/tasks
- Reduce the length of the assignment for different modes 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/

Response to Intervention (RTI)

- Tiered interventions following the RTI framework
- Effective RTI strategies for teachers - http://www.specialeducationguide.com/pre-k-12/response-to-intervention/effective-rti-strategies-for-teachers/
- Intervention Central - http://www.interventioncentral.org/

English Language Learners (ELL)

- Provide text-to-speech
- Use of a 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

Enrichment

- 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, and groups should be varied