Califon Public School
Curriculum

Subject: Math	Grade: 1st	Unit #: 1	Pacing: 8 weeks

Unit Title: Number and Operations in Base Ten

OVERVIEW OF UNIT:

Students will model the place value of two-digit numbers using drawings, objects, expressions, and equations.
Students will use place value to compare numbers.
Students will count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
Students will compare two two-digit numbers based on the meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

In this chapter, students will do several activities to help build their understanding of place value. Modeling, counting, and grouping using manipulatives, visual models, and mental math to add/subtract multiples of ten are practices that will help students construct meaning.

Big Ideas

- **Extend the counting sequence**.
  - Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
- **Understand place value.**
  - Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
    - 10 can be thought of as a bundle of ten ones — called a "ten."
    - The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
    - The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
  - Compare two two-digit numbers based on the meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
- **Use place value understanding and properties of operations to add and subtract.**
  - Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

- Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
- Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Essential Questions

- How are even numbers and odd numbers different?
- How do you know the value of a digit?
- How do you describe a 2-digit number as tens and ones?
- How can you show the value of a number in different ways?
- How does finding a pattern help you find all the ways to show a number with tens and ones?
- How do you count by 1s, 5s, 10s, and 100s at any given number?
- How do you group tens as hundreds?
- How do you write the 3-digit number that is shown by a set of blocks?
- How do you know the values of the digits in numbers?
- How do you use place value to find 10 more, 10 less, 100 more, or 100 less than a 3-digit number?
- How can knowing a counting pattern help you count to 120?
- How do numbers change as you count by tens to 120?
- How can you use different ways to write a number as ten and ones?
- How can you show a number as ten and ones?
- How can you model and name groups of ten?
- How can you group cubes to show a number as tens and ones?
- How can you show numbers up to 100 as tens and ones?
- How can making a model help you show a number in different ways?
- How can you model, read, and write numbers from 100 to 110?
- How can you model, read, and write numbers from 110 to 120?

Objectives

- Students will be able to represent numbers in multiple ways.
- Students will be able to describe a 2-digit number as tens and ones.
- Students will be able to show the value of a number in different ways.
- Students will be able to write the 3-digit number that is shown by a set of blocks.
- Students will be able to know the value of a digit.
- Students will be able to compare numbers and show a model to support their thinking.

Assessment

Formative Assessment:

- GoMath Chapters 1, 2, 3
- Lesson Quick Check
- Guided Math Notes
- Leveled Center Work

Benchmark:

- Linkit

Alternative:

- Modified test developed by teacher
- Prodigy

Summative Assessment:

- Chapter review/test
- Performance assessment task

Key Vocabulary
even, odd, digits, hundred, thousand, compare, = is equal to, > is greater than, < is less than

Resources & Materials
● Houghton Mifflin Harcourt, Go Math

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom

Student Technology:

- Chromebooks
- Seesaw

Activities:

- Students are using the Chromebooks to complete assignments through ThinkCentral, Prodigy, or XtraMath.
- 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.1.4	Read with sufficient accuracy and fluency to support comprehension.

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	**Standard Description**
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.
6	Attend to precision.

Standards	
Standard #	**Standard Description**
1.NBT.A.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.NBT.B.2	Understand that the two digits of a two-digit number represent amounts of tens and ones.
1.NBT.B.2.a	10 can be thought of as a bundle of ten ones — called a "ten."
1.NBT.B.2.b	The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

1.NBT.B.2.c	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
1.NBT.B.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
1.NBT.C.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
1.NBT.B.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
1.OA.C.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. *
1.OA.B.3	Apply properties of operations as strategies to add and subtract.[2] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*
1.OA.C.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

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: 1st	Unit #: 2	Pacing: 20 weeks

Unit Title: Operations and Algebraic Thinking

OVERVIEW OF UNIT:

Students will represent and solve problems involving addition and subtraction.
Students will understand and apply properties of operations and the relationship between addition and subtraction.
Students will add and subtract within 20.
Students will work with addition and subtraction equations.

Big Ideas

- **Represent and solve problems involving addition and subtraction.**
  - Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
  - Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
- **Understand and apply properties of operations and the relationship between addition and subtraction.**
  - Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}
  - Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.
- **Add and subtract within 20**.
  - Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
  - Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
- **Work with addition and subtraction equations.**

- Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
- Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.

Essential Questions

- What happens if you change the order of the addends when you add?
- How do you count on 1, 2, or 3?
- What are doubles facts?
- How can you use what you know about doubles to find other sums?
- What strategies can you use to solve addition fact problems?
- How can you use a ten frame to add 10 and some more?
- How do you use the make a ten strategy to add?
- How can you make a ten to help you add?
- How can you add three addends?
- How can you group numbers to add three addends?
- How do you solve addition word problems by drawing a picture?
- How can you show taking from with pictures?
- How do you model taking from a group?
- How do you model taking apart?
- How do you solve subtraction problems by making a model?
- How can you use pictures to compare and subtract?
- What happens when you subtract 0 from a number?
- How can you show all the ways to take apart a number?
- Why are some subtraction facts easy to subtract?
- How can making a model help you solve a problem?
- How do related facts help you find missing numbers?
- How do you know if addition and subtraction facts are related?
- How can you use addition to check subtraction?
- How can you use a related fact to find an unknown number?
- How do you choose when to add and when to subtract to solve a problem?
- How can you add and subtract in different ways to make the same number?
- How can you decide if a number sentence is true or false?
- How can addition and subtraction strategies help you find sums and differences?

Objectives

- Students will be able to create a number sentence to represent an addition or subtraction problem.
- Students will be able to solve addition and subtraction problems by drawing models.
- Students will be able to apply addition and subtraction strategies while solving math problems.
- Students will be able to add and subtract two-digit numbers.

Assessment

Formative Assessment:

- GoMath Chapters 4,5,6,7,8,9,10
- Lesson Quick Check
- Guided Math Notes
- Leveled Center Work

Summative Assessment:

- Chapter review/test
- Performance assessment task

Benchmark:

- **Linkit**

Alternative:

- Modified test developed by teacher
- Prodigy
-

Key Vocabulary

Sums, addends, difference, regroup, column, Difference, regroup, Minus, subtraction sentence, subtract, compare, fewer, more, Count on, doubles, doubles minus one, doubles plus one, make a ten, Model, Add, Subtract, Digit

Resources & Materials

- Houghton Mifflin Harcourt, Go Math

Technology Infusion

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Student Technology:

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Activities:

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Activities:

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- 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.1.4	Read with sufficient accuracy and fluency to support comprehension.

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	**Standard Description**
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**
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Standards	
Standard #	**Standard Description**
1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[1]
1.OA.A.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[1]
1.NBT.C.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
1.OA.D.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 - 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
1.OA.D.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ - 3, 6 + 6 = _.*
1.OA.C.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.NBT.C.4	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
1.OA.C.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.B.3	Apply properties of operations as strategies to add and subtract.[2] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*
1.OA.B.4	Understand subtraction as an unknown-addend problem. *For example, subtract 10 - 8 by finding the number that makes 10 when added to 8.*

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
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- Use online resources for skill-building
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- 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: 1st	Unit #: 3	Pacing: 3 weeks

Unit Title: Money

OVERVIEW OF UNIT:

Students will be able to recognize a penny, a nickel, and a dime.
Students will identify the value of a penny, a nickel, and a dime.
Students will be able to identify the total value of a group of coins.

Big Ideas

- I can tell the value of a penny, a nickel, and a dime.
- I can identify and name the values of a penny, nickel, and dime.
- I can find the total value of a group of coins.

Essential Questions

- How do you find the total value of a group of dimes, nickels, and pennies?
- How do you find the total value of a group of coins?
- How do you order coins to help find the total of a group of coins?
- How do you choose coins to show a money amount in different ways?

Objectives

- Students will be able to identify a penny, a nickel, and a dime.
- Students will be able to express the value of a penny, a nickel, and a dime.

Assessment

Formative Assessment:

- Go Math Chapter 11
- Lesson Quick Check
- Guided Math Notes
- Leveled Center Work

Summative Assessment:

- Chapter review/test
- Performance assessment task

Benchmark:

- **Linkit**

Alternative:

- Modified test developed by teacher
- Prodigy

Key Vocabulary

Dime, nickel, penny, cent sign ¢, quarter, dollar, dollar sign $, decimal point .

Resources & Materials
● Houghton Mifflin Harcourt, Go Math

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Activities:

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- PBS STEM - http://www.pbs.org/teachers/stem/#content
- STEM Works - http://stem-works.com/activities
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Standards	
Standard #	**Standard Description**
1.M.C.4	Know the comparative values of coins and all dollar bills (e.g., a dime is of greater value than a nickel). Use appropriate notation (e.g., 69¢, $10).
1.M.C.5	Use dollars in the solutions of problems up to $20. Find equivalent monetary values (e.g., a nickel is equivalent in value to five pennies). Show monetary values in multiple ways. For example, show 25¢ as two dimes and one nickel, and as five nickels. Show $20 as two tens and as 20 ones.

Differentiation
Students with 504 plans
● Preferential seating ● Guided notes ● Extra time ● Teacher check-ins

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- 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: 1st	Unit #: 4	Pacing: 4 weeks

Unit Title: Geometry & Fractions

OVERVIEW OF UNIT:

Students will focus on defining attributes such as the number and shapes of flat surfaces. They will learn the names of 3D shapes and connect them to real-world objects. Once students learn to identify attributes, they will compare shapes and classify them in several ways. They will also learn to use spatial visualization in order to compose and decompose shapes. This is an important foundation of geometry.

Children will explore two-dimensional geometry by working with drawings, concrete models, and electronic tools. They will be given opportunities to sort shapes according to a variety of attributes. They will also compose and decompose two-dimensional shapes.

Big Ideas

- **Reason with shapes and their attributes.**
  - Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
  - Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
  - Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Essential Questions

- How can you identify and describe three-dimensional shapes?
- How can you combine three-dimensional shapes to make new shapes?
- How can you use a combined shape to build new shapes?
- How can acting it out help you take apart combined shapes?
- What two-dimensional shapes do you see on the flat surfaces of three-dimensional shapes?
- How can you use attributes to classify and sort two-dimensional shapes?
- What attributes can you use to describe two-dimensional shapes?
- How can you put two-dimensional shapes together to make new two-dimensional shapes?
- How can you combine two-dimensional shapes to make new shapes?

- How can acting it out help you make new shapes from combined shapes?
- How can you find shapes in other shapes?
- How can you take apart two-dimensional shapes?
- How can you identify equal and unequal parts in two-dimensional shapes?
- How can a shape be separated into two equal shares?
- How can a shape be separated into four equal shares?

Objectives

- Students will be able to identify and describe three-dimensional shapes.
- Students will be able to combine and take apart three-dimensional shapes to make new shapes.
- Students will be able to identify and describe two-dimensional shapes.
- Students will be able to combine and take apart two-dimensional shapes to make new shapes.

Assessment

Formative Assessment:

- GO Math Chapters 12 and 13
- Lesson Quick Check
- Guided Math Notes
- Leveled Center Work

Summative Assessment:

- Chapter review/test
- Performance assessment task

Benchmark:

- **Linkit**

Alternative:

- Modified test developed by teacher
- Prodigy

Key Vocabulary

Cone, cube, curved surface, cylinder, flat surface, rectangular prism, sphere, Equal parts, equal shares, fourth of, fourths, half of, halves, quarter of, quarters, sides, unequal parts, unequal spheres, vertices

Resources & Materials

- Houghton Mifflin Harcourt, Go Math

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom

Student Technology:

- Chromebooks
- Seesaw

Activities:

- Students are using the Chromebooks to complete assignments through ThinkCentral, Prodigy, or XtraMath.

● 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.1.4	Read with sufficient accuracy and fluency to support comprehension.

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	**Standard Description**
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.
6	Attend to precision.

Standards	
Standard #	**Standard Description**
1.G.A.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
1.G.A.2	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. {*Clarification: Students do not need to learn formal names such as "right rectangular prism.}*
1.G.A.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

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	1st	5	4 weeks

Unit Title: Measurement & Time

OVERVIEW OF UNIT:

Students will develop an early understanding of measurement by simply comparing one object to another. After directly comparing objects, informal units will be used. For example, students may compare two pencils by placing them next to each other. Then children could compare the lengths of the pencils by comparing each pencil to a cube train. Students will also learn to tell time to the hour and half hour using analog and digital clocks.

Big Ideas

- **Measure lengths indirectly and by iterating length units**.
  - Order three objects by length; compare the lengths of two objects indirectly by using a third object.
  - Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
- **Tell and write time.**
  - Tell and write time in hours and half-hours using analog and digital clocks.
- **Represent and interpret data.**
  - Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Essential Questions

- How do you order objects by length?
- How can you compare lengths of three objects to put them in order?
- How do you measure length using nonstandard units?
- How do you use a nonstandard measuring tool to measure length?
- How can acting it out help you solve measurement problems?
- How do you tell time to the hour on a clock that has only an hour hand?
- How do you tell time to the half hour on a clock that has only an hour hand?
- How are the minute hand and hour hand different for time to the hour and time to the half hour?
- How do you know whether to draw and write time to the hour or half hour?

Objectives
● Students will be able to read, write, and tell time to the nearest hour and half-hour. ● Students will be able to order objects by length. ● Students will be able to measure to the nearest inch. ● Students will be able to order lengths from shortest to longest and vice-versa.

Assessment	
Formative Assessment: ● GoMath Chapter 15, 16 ● Lesson Quick Check ● Guided Math Notes ● Leveled Center Work **Summative Assessment:** ● Chapter review/test ● Performance assessment task	**Benchmark:** ● **Linkit** **Alternative:** ● Modified test developed by teacher ● Digital Personal Math Trainer ● Prodigy

Key Vocabulary
Inch, foot, measuring tape, yardstick, line plot, Centimeter, meter, Half hour, hour, hour hand, longest, minute, minute hand, shortest

Resources & Materials
● Houghton Mifflin Harcourt, Go Math

Technology Infusion

Teacher Technology:
- Promethean Board
- Google Classroom

Student Technology:
- Chromebooks
- Seesaw

Activities:
- Students are using the Chromebooks to complete assignments through ThinkCentral, Prodigy, or XtraMath.
- 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.1.4	Read with sufficient accuracy and fluency to support comprehension.

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	**Standard Description**
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 Practic	
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**
1.M.A.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
1.M.A.2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps*.
1.M.B.3	Tell and write time in hours and half-hours using analog and digital clocks.

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	1st	6	2 weeks

Unit Title: Data Literacy

OVERVIEW OF UNIT:

Students will organize, represent, and interpret data with up to three categories.
Students will ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Big Ideas

- What are some ways to represent data?
- How can we access information from various presentations in math?
- How can students record data from a survey?

Essential Questions

- How do I use a tally chart to record data from a survey?
- How do I make picture graphs to represent data?
- How do I interpret data in bar graphs and use that information to solve problems

Objectives

- Students will make a tally chart to record data from a survey.
- Students will interpret data in a picture graph and use that information to solve problems.
- Students will make picture graphs to represent data.
- Students will interpret data in bar graphs and use that information to solve problems.
- Students will make bar graphs to represent data.
- Students will make a picture graph and a bar graph.

Assessment

Formative Assessment:

- GoMath Chapter 16
- Lesson Quick Check
- Guided Math Notes
- Leveled Center Work

Summative Assessment:

- Chapter review/test
- Performance assessment task

Benchmark:

- **Linkit**

Alternative:

- Modified test developed by teacher
- Prodigy

Key Vocabulary
Survey, data, picture graph, key, bar graph

Resources & Materials
• Houghton Mifflin Harcourt, Go Math

Technology Infusion

Teacher Technology:

- Promethean Board
- Google Classroom

Student Technology:

- Chromebooks
- Seesaw

Activities:

- Students are using the Chromebooks to complete assignments through ThinkCentral, Prodigy, or XtraMath.
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Activities:

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

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- NASA STEM - http://www.nasa.gov/audience/foreducators/expeditions/stem/#.VYrO2flViko
- PBS STEM - http://www.pbs.org/teachers/stem/#content
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Standard	Standard Description
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Standards for Mathematical Practice	
MP #	Practice
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4	Model with mathematics.

Standards	
Standard #	**Standard Description**
1.DL.A.1	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

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
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- Prioritize tasks
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