Introduction

The K-5 standards provide students with a solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals—which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.

The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels.

These standards define what students should understand and be able to do in their study of mathematics. What does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as $(a + b)(x + y)$ and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding $(a + b + c)(x + y)$. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

All students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The standards do provide clear signposts along the way to the goal of college and career readiness for all students.

Gifted & Talented

The Saddle River School District extends learning opportunities to all high achieving students. It supports the philosophy that every student has special talents and gifts. The Saddle River School District's enrichment and gifted & talented programs offer a unique approach to servicing all students while maintaining a focus on those who are identified as needing pull out services through the district's screening/criteria process. The Saddle River School District's enrichment program focuses on bringing out the special talents in all learners as enrichment instruction is delivered to all students in grades kindergarten through fifth grade. The program follows the Joseph Renzulli schoolwide enrichment model that concentrates on "schools being a place for talent development," (Renzulli, 1994). The program follows a wide-range of enriching/developing activities based upon student strengths and interests. Additionally, the program focuses on enriching activities across the curriculum in providing complementary and developing features/standards for all subject areas. The enrichment program builds upon existing student learning standards in all content areas in coordination with instruction and student needs.

The Saddle River School District Gifted & Talented program offers pull-out instruction for those students meeting the multiple measures and specific criteria set forth and approved by the board of education. The identification process may/can begin as early as kindergarten. The gifted and talented program follows the central theme that all appropriate curriculum standards are followed and that those standards are the foundation for developing student learning opportunities and standards across the curriculum. The gifted and talented program will provide the following in coordination with each content area when and where appropriate:

- Develop students' abilities and engage critical thinking skills
- Expand students' creative thought process and responses
- Advance students' research skills needed to become independent learners
- Develop students' abilities to self-evaluate their own learning process
- Enrich students' abilities in seeking and expanding their own knowledge in subject content areas and individual talents
- Develop students' ability to interact effectively in small-group and large-group setting
- Heighten students' ability in expanding on student learning standards to strengthen appropriate skills necessary for 21st century learning

English Language Learners (ELL)

The Saddle River School District recognizes the importance of increasing language proficiency while gaining confidence and strength so that academic goals and New Jersey state learning standards can be met. English Language Learners in the Saddle River School District are identified through a multitude of measures. These measure include, but are not limited to: a home language survey, parental conferencing, and daily teacher observations. Based on the information/data collected, the Saddle River School District will determine if a formal approved language assessment is necessary. The World-Class Instructional Design and Assessment (WIDA) is the assessment tool for those students recommended for ELL testing.

The Saddle River School District will provide the following accommodations for ELL students:

- Basic skills with a focus a the specific language skills
- Use of a translation dictionary (ipad, google translator, bilingual word to word dictionary)
- Preferential seating
- Extended time and/or modified classroom assignments
- Print out of teacher notes/lessons for additional review
- Extended time and/or modified assessments
- Extended time/accommodation for standardized testing in coordination with state regulations

Special Education Students

The Saddle River School District special education department offers a full continuum of services for students who are eligible for special education services. In order to meet the specific requirements for each learner, programs are developed so that that social, emotional and educational needs are met within the least restrictive environment. The specific program for each learner is based on individual needs where goals and objectives are set and followed accordingly. These individual educational plans follow a specific plan that is aligned to the student learning standards and may include, but is/are not limited to:

- Individual education plan
- Pull-out support
- Replacement content instruction
- In-class support

- Instructional aide(s)
- Support services (i.e.; speech, physical therapy, occupational therapy)
- Presentation accommodations (i.e.; notes, outlines, instructions, lists, organization)
- Response accommodations (i.e.; dictations, audio, dictionaries, calculation devices, scribes)
- Setting accommodations (i.e.; lighting, acoustics, seat placement, testing, sensory tools)
- Timing accommodations (i.e.; completing tasks, frequent breaks, processing directions)
- Scheduling accommodations (i.e.; spacing out projects/assignments, order of schedule)
- Organizational accommodations (i.e.; highlighter, time management, planning)
- Assignment modifications (i.e.; fewer tasks, alternate questions)
- Technology support (i.e; ipad, word processing, specific programs/apps)
- Testing accommodations (i.e.; extended time, placement, seating, time)

Students who require additional services outside of the district's resource program, may require an out-of-district placement. In this event, the Child Study Team will coordinate accordingly to ensure that all necessary learning standards are being met.

Students in Danger of Failing

For those students in danger of failing, the Saddle River School District has a specific referral process to ensure that student needs are being met. The Intervention & Referral Services (I&RS) is an interdisciplinary team of professional within the school that addresses a full range of student/staff needs and concerns. This process is designed to maximize student success and establish goals and benchmarks to promote outcomes that positively reflect academics, health, behavior, self-esteem, work habits and strong character. The I&RS team is comprised of a chairperson, child study team member, teachers and other school professionals so that a continuous system of support can be provided. The team provides a plan so that short and long term goals can be established and strategies can be implemented and designed specifically for each student. In trying to achieve success, the team works collaboratively in making growth for each student a top priority and adhere to a plan that is achievable but rigorous. This plan, as set by New Jersey I&RS Team Process, may contain, but is not limited to the following;

- Request for assistance
- Information collection
- Parent Notification
- Problem solving within the I&RS team
- Developing an I&RS action plan
- Supporting, evaluating and continuing the process

In evaluating and monitoring students, the I&RS team closely calculates a plan so that curriculum needs can be met. In order to achieve and demonstrate success, the Saddle River School District provides modifications and support so that consideration is given to, but not limited to, the following:

- Student strengths/weaknesses
- Classroom and standardized assessments
- Academic records
- Social and behavioral patterns
- Previous history or concern
- Participation in class (and interaction with peers)
- Health related concerns
- Family concerns
- Retention of information/instruction
- Student interests
- Independent & group work habits

- Emotional status
- Study habits (at home/school)
- Present level of functioning
- Expectations (academic, social, behavioral, etc.)
- Following classroom rules/directions/procedures

As the I&RS team formulates a plan, many ongoing concerns are addressed within the team and may include parental notification/input. The problem solving objectives as set forth by New Jersey I&RS Team Process will:

- Describe the problem
- Identify the priority
- Develop objectives
- Review previous interventions
- Create new strategies
- Analyze and evaluate solutions

The Saddle River School District continues to inform and update staff of the I&RS procedures. The procedures are as follows:

- Teacher recognizes a problem(s) with a particular student in class and refers the student to the I&RS committee by filling out the appropriate paperwork. An I&RS meeting is scheduled to and the committee and appropriate staff members gather to discuss and begin the proactive process of assistance.
- Information from the teacher(s), administrator(s), and other school personnel is collected.
- Parent notification where/when appropriate
- The I&RS team begins the problem solving process by offering ideas and suggestions pertaining to the problems while prioritizing the most important issues.
- The I&RS team develops an action plan with specific strategies that can be implemented to achieve both short term and long term goals.
- The I&RS team meets regularly to evaluate and support the action plan (and to adjust accordingly when/where appropriate). Parents are notified on an ongoing basis to continue communication in the support of implementing the strategies set forth in the action plan.

Basic Skills Instruction is also a valuable resource that the Saddle River School District uses to meet the needs of struggling students. Students who require additional academic support will be offered that assistance in all subject areas. This system allows the students to receive in-class or pull-out support when and where appropriate so that grade level curriculum and student learning goals can be met. This program is an intervention system used to create a positive and constructive learning environment so that students can achieve success.

After the I&RS action plan has been in place the team may continue with the current strategies, offer/discuss new strategies or decide that the student should be referred to the district's child study team. In the instance of referring a student to the child study team, it can be concluded that many of the strategies from the action plan were not benefitting the student as intended. The child study team them would follow the guidelines for the referral process and notify the parents/guardians of the potential special education recommendation.

National Governors Association Center for Best Practices, Council of Chief State School Officers. "Common Core State Standards - Mathematics." National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C., 2010. Web. 20 June 2012. <http://www.corestandards.org/the-standards/mathematics>.

Unit 1 Overview

Content Area: Mathematics

Unit Title: Operations and Algebraic Thinking

Target Course/Grade Level: Grade 1

Unit Summary

In this unit students are introduced to new situations that relate to addition, "join" and "part-part- whole" while continuing to learn and use the verbal and symbolic language of mathematics. Students also learn to notice that you can add numbers in any order without affecting the sum – they informally learn the *order* or *commutative property* of addition that becomes more important as students solve problems, master basic facts, and perform mental math (*enVision Math*, Topic 1 pg.1D). Students move on to understanding subtraction situations including *missing part, taking away from a whole,* and *compare*. Students are encouraged to use related addition facts to solve subtraction situations and strengthen their understanding of the inverse relationship between addition and subtraction. Children link the use of manipulatives with writing a subtraction number sentence to model the problem situation.

A major focus of this unit is understanding the concept of 10. Our number system is based on groups of 10 and this understanding lays the groundwork for place value work in later grades. Students learn to use 5 and 10 as benchmarks for learning basic addition and subtraction facts. An emphasis on the use of ten-frames enables children to learn to "see" numbers without resorting to counting. Being able to visualize, for example, 7 as a group of 5 and 2 more helps children learn basic facts without rote memorization, but with conceptual understanding. Other basic fact strategies are introduced such as, doubles, doubles + 1, and doubles + 2. These strategies help children learn basic facts and perform mental math calculations. "Making 10" is an addition strategy that children can apply when one addend is close to 10 and is an application of the associative property of addition. Being able to "make 10" shows a flexibility with, and an understanding of numbers as quantities that can be split up and reorganized into "friendlier" quantities. This flexibility with, and understanding of numbers as quantities is what is known as "number sense" and is necessary to be successful in math.

The unit ends with the introduction of subtraction fact strategies such as "part-part-whole". If students understand the relationship between parts and wholes, addition and subtraction facts are easier to master. A fact family is a group of related facts where each number sentence uses the same numbers. If a child knows one fact in a family, he can use his understanding of part-part-whole to find the rest of the facts.
As children continue to write number sentences to describe situations, the function of the equal sign as a balance between two quantities is reinforced. Understanding equality is fundamental to success in algebra.

Primary interdisciplinary connections: Reading, Language Arts, Science, Social Studies

21st century themes:

- Critical Thinking/Problem Solving
- Communication
- Collaboration

Unit Rationale

The Progression in Operations and Algebraic Thinking deals with the basic operations—the kinds of quantitative relationships they model and consequently the kinds of problems they can be used to solve as well as their mathematical properties and relationships. This domain involves concepts, properties and representations that extend to other number systems, to measures and algebra. The work accomplished in this unit strengthens children's problem solving abilities. Linking equations to concrete materials, drawings, and

other representations of problem

situations affords deep and flexible understandings of these building blocks of algebra.

Learning Targets

Standards

- 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.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.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.*
- 1.OA.C.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 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.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 = _.*

Content Statements

- Represent and solve problems involving addition and subtraction.
- Understand and apply properties of operations and the relationship between addition and subtraction.
- Add and subtract within 20.
- Work with addition and subtraction equations.

CPI #	Cumulative Progress Indicator (CPI)
1.OA.A.1	Use addition and subtraction within 20 to solve word problems involving situations or adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.
1.OA.A.2	Solve addition word problems with three whole numbers with sums less than, or equal to 20.
1.OA.B.3	Apply properties of operations to add or subtract whole numbers within 20 (Commutative

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

	and Associative Properties).
1.OA.B.4	Solve subtraction problems using unknown addends (within 20).
1.OA.C.5	Count forward or backward from any number within 20 to solve addition and subtraction problems.
1.OA.C.6	Add or subtract whole numbers within 20 using strategies including making a 10 or decomposing a number leading to a 20.
1.OA.D.7	Demonstrate understanding of the equal sign by determining if an equation is true or false.
1.OA.D.8	Solve addition and subtraction equations by finding the missing whole number in any position.

Unit Essential Questions

- Topic 1: What are ways to think about addition?
- Topic 2: What are ways to think about subtraction?
- Topic 3: How can numbers to 10 be shown using 5 and some more?
- Topic 4: What strategies can be used to find addition and subtraction facts?
- Topic 5: What other strategies can be used to find addition facts?
- Topic 6: What other strategies can be used to find subtraction facts?

Unit Enduring Understandings

Topic 1:

- The number of objects in some patterned arrangements can recognized without counting.
- Numbers 6, 7, 8, and 9 can be broken down into parts of the whole in different ways.
- Parts of a whole is one interpretation of addition. Addition number sentences can be used to show parts of a whole.
- Joining parts to make a whole is one interpretation of addition. Addition number sentences can be used to show joining situations.
- Two numbers can be added in any order.
- Some problems can be solved by using objects to act out the actions in the problems.

Topic 2:

- A missing part of a whole can be found when the whole and the other part are known.
- A missing part of a whole is one interpretation of subtraction. Subtraction number sentences can be used to show a missing part subtraction situation.
- Taking away parts from a whole is one interpretation of subtraction. Subtraction number sentences can be used to show taking-away subtraction situations.
- Comparing two quantities to find how much more/less one quantity is than the other is one interpretation of subtraction. Subtraction number sentences can be used to show comparison subtraction situations.
- There are different interpretations of subtraction. Subtraction number sentences can be used to show each interpretation.
- Addition and subtraction have an inverse

relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact.

- The difference can be written at the beginning or end of a subtraction sentence, as long as the number or expression on each side of the equal sign are the same amount.
- Some problems can be solved by using objects to act out the actions in the problem.

Topic 3:

- Numbers to 10 can be represented on a ten-frame using 5 and 10 as benchmarks. Using benchmarks helps build the understanding of various counting strategies beyond counting by 1s.
- The number 10 can be broken into parts of the whole in different ways.
- A missing part of a whole can be found when the whole and the other part are known.
- Some problems can be solved by recording and organizing data in a table and by finding and using numerical patterns in the table.

Topic 4:

- The number relationships of 0, 1 more than and 2 more than are the basis for addition facts with 0, 1, and 2.
- The number relationships 0 less than, 1 less than, and 2 less than are the basis for subtraction facts with a 0, 1, and 2.
- Doubles facts can be associated with memorable real-world situations.
- Basic addition facts that are near doubles can be found using a related doubles fact.
- Facts with sums 6 through 10 can be broken down into 5 plus some more.
- Ten can be shown in two parts in different ways and represented using addition number sentences.
- Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact.
- Information in a problem can often be shown using a picture or a diagram and can be used to

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

	understand and solve the problem. Some problems can be solved by writing and completing a number sentence or equation. Topic 5: ● Doubles facts can be associated with memorable real-world situations. ● Basic addition facts that are near doubles can be found using a related doubles fact. ● Some addition facts can be found by changing to an equivalent fact with 10. ● Addition facts involving 9 can be changed to an equivalent fact with 10. ● Addition facts involving 8 can be changed to an equivalent fact with 10. ● Three numbers can be added in any order and the sum will be the same. ● Numbers can be grouped in different ways to solve word problems with three addends. ● Sometimes the answer to one problem/question is needed to find the answer to another problem/question. Topic 6: ● Subtraction facts with teen numbers can be simplified by making use of the number's relationships to 10. ● Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact. ● Information in a problem can often be shown using a picture or diagram and used to understand and solve the problem. Some problems can be solved by writing and completing a number sentence or equation.

Unit Learning Targets

Students will ...

- use addition and subtraction within 20 to solve word problems of all types with unknowns in all positions.
- solve addition problems with three whole numbers with sums less than or equal to 20.
- apply the Commutative and Associative properties of addition to add or subtract whole numbers within 20.
- solve subtraction problems using unknown addends within 20.
- count forward or backward from any number within 20 to solve addition and subtraction problems.
- add or subtract whole numbers within 20 using strategies including making a 10 or decomposing a

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

number leading to a 20.
- demonstrate understanding of the equal sign by determining if an equation is true or false.
- solve addition or subtraction equations by finding the missing whole number in any position.

Evidence of Learning

Summative Assessment (14 days per topic)
Each topic has a summative test and performance assessment.

Materials needed: listed in each topic as per teacher's guide for that topic.

Teacher Resources:
enVision Math: Realize Edition Topic 1, *Understanding Addition enVision Math Common Core: Realize Edition* Topic 2, *Understanding Subtraction enVision Math Common Core: Realize Edition* Topic 3, *Five and Ten Relationships*
enVision Math: Realize Edition Topic 4, *Addition and Subtraction Facts to 12 enVision Math Common Core: Realize Edition* Topic 5, *Addition Facts to 20*
enVision Math Common Core: Realize Edition Topic 6, *Subtraction Facts to 20*

Formative Assessments

- teacher observation
- homework
- Lesson *Additional Activity*
- prior knowledge assessment
- guided practice
- Lesson *Quick Check*
- *Daily Review*

Topic/Lesson Plans

Topic	Timeframe
Topic 1 *Understanding Addition*	14 days
Topic 2 *Understanding Subtraction*	14 days
Topic 3 *Five and Ten Relationships*	14 days
Topic 4 *Addition and Subtraction Facts to 12*	14 days
Topic 5 *Addition Facts to 20*	14 days
Topic 6 *Subtraction Facts to 20*	14 days

Teacher Notes:
This unit consists of six topics from the *enVision Math Common Core Realize* series with anywhere from 5 to 11 lessons per topic. These six topics address the Operations and Algebraic Thinking domain of the New Jersey Student learning Standards for Mathematics for Grade 1 students. In addition, these six topics address all eight of the Standards for Mathematical Practice.

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Essential questions and enduring understandings were taken directly from the textbook series used by the

district, *enVision Math Common Core: Realize Edition*

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

"Grade 1 » Operations & Algebraic Thinking." Grade 1 » Operations & Algebraic Thinking. N.p., n.d. Web. 07 Apr. 2015.http://www.nj.gov/education/cccs/2016/math/

Charles, Randall. *enVision Math realize Edition*. Realize ed. Grade 1. Upper Saddle River: Pearson Education, 2015. Print. enVision Math Common Core

NJDOE. "Model Curriculum: Mathematics (K-12) - Grade 1." *Model Curriculum: Mathematics (K-12) - Grade 1*. New Jersey Dept. of Education, n.d. Web. 08 Apr. 2015. <http://www.state.nj.us/education/modelcurriculum/math/1.shtml>.

Topic 1	
Content Area: Mathematics	
Topic Title: *Understanding Addition*	**Timeframe:** 14 days

Topic Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies

Integration of Technology: digital resources are part of this series

Materials needed:

- clay
- paper
- grid paper
- connecting cubes
- crayons
- two-part pattern cards (Teaching Tool 8)
- counters
- paper plates
- colored square tiles
- paper bags
- masking tape
- snap cubes
- game markers
- number cards 1-5

Topic 1 Vocabulary:

- in all
- inside
- outside
- part
- whole
- double
- plus (+)
- add
- sum

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

- addition sentence
- equals (=)

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will use two-part spatial patterns to add and subtract (1-1) ● will recognize parts of a number as a strategy for addition. (1-2) ● will recognize parts of the number 8. (1-3) ● will recognize parts of the number 9. (1-4) ● will write addition expressions and number sentences to find the whole, given two parts. (1-5) ● will write addition sentences to solve stories about joining. (1-6) ● will learn to add in any order. (1-7) ● will use objects to solve story problems. (1-8)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning i. Guided Practice ii. Independent Practice and Problem Solving 6. Close/Assess and Differentiate *1.* lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

Differentiation

- TE pg. 1E
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topic 1 – 6 teacher's guides, workbooks, digital resources, manipulatives

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Topic 2	
Content Area: Mathematics	
Topic Title: *Understanding Subtraction*	**Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies, Art

Integration of Technology: digital resources are part of this series

Materials needed:

- counters
- paper
- paper clips
- pencils
- two-color counters
- small cup
- colored paper
- number cards 0-11
- connecting cubes
- opaque container
- part-part-whole mat

Topic 2 Vocabulary:

- missing part
- subtract
- difference
- subtraction sentence
- minus sign
- equal sign
- take away
- compare
- same amount

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will solve problems by finding the missing part. (2-1) ● will find a missing part of 8 when one part is known. (2-2) ● will use subtraction to find the missing part of 9 when one part is known. (2-3) ● will write and solve subtraction number sentences. (2-4) ● will tell and act out stories about taking away to find how many are left. (2-5) ● will tell and act out comparing stories to find how two groups are different. (2-6) ● will use objects and drawings to find the missing part when one part and the whole are given. (2-7) ● will write subtraction sentences to represent different kinds of subtraction stories. (2-8) ● will write related addition and subtraction facts. (2-9) ● will write and identify different subtraction sentences that are true for the same model. (2-10) ● will use counters to	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning i. Guided Practice ii. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* i. prescribe differentiated instruction ii. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

act out and solve		

subtraction story problems involving taking from, taking apart, and comparing with unknowns in all positions. (2-11)		

Differentiation

- TE pg. 39C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topic 1 – 6 teacher's guides, workbooks, digital resources, manipulatives

Topic 3									
Content Area: Mathematics									
Topic Title: *Five and Ten Relationships*								**Timeframe:** 14 days	
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		
Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies, Art									
Integration of Technology: digital resources are part of this series									
Materials needed: • counters • connecting cubes									

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

- paper clips
- pencils
- number cards 0-11
- single ten-frame mat
- blank mini ten-frames
- cups

Topic 3 Vocabulary:

- no new vocabulary

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will use counters and a ten-frame to model numbers up to 10. (3-1) ● will learn to recognize numbers on a ten-frame noting the relationship of those numbers to 5 and 10. (3-2) ● will show 10 as two parts. (3-3) ● will use counters and a part-part-whole mat to find missing parts of 10. (3-4) ● will make tables to solve problems. (3-5)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Common Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning i. Guided Practice ii. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* i. prescribe differentiated instruction ii. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

Differentiation

- TE pg. 89C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topic 1 – 6 teacher's guides, workbooks, digital

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

resources, manipulatives

Topic 4									
Content Area: Mathematics									
Topic Title: *Addition and Subtraction Facts to 12*							**Timeframe:** 14 days		
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		
Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies									
Integration of Technology: digital resources are part of this series									

Materials needed:

- counters
- paper clips
- pencils
- number cards 0-11
- building blocks
- dried peas
- plastic cups
- connecting cubes
- number cube (1-6)
- set of addition fact cards
- two-color counters
- double ten-frame mat
- number cube (5-9)
- number cards 12-20
- part-part-whole mat
- index cards

Topic 4 Vocabulary:

- near double
- 2 less than
- 1 less than
- 0 less than

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will count on to add, starting with the greater number. (4-1) ● will recognize doubles as a strategy for remembering sums. (4-2) ● will use double facts to learn near doubles facts. (4-3) ● will use a ten-frame to write addition facts with 5. (4-4) ● will use two ten-frames to model addition facts. (4-5) ● will master concepts of 0 less than, 1 less than, and 2 less than when subtracting 0, 1, and 2. (4-6) ● will learn to use doubles addition facts to master related subtraction facts. (4-7) ● will understand how addition facts to 9 relate to subtraction facts to 8. (4-8) ● will write related addition and subtraction facts to 12. (4-9) ● will draw pictures to solve addition story problems. (4-10)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning i. Guided Practice ii. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* i. prescribe differentiated instruction ii. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework
Differentiation ● TE pg. 115C ● embedded within each lesson ● differentiated worksheets/activities for each lesson		

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topic 1 – 6 teacher's guides, workbooks, digital resources, manipulatives

Topic 5									
Content Area: Mathematics									
Topic Title: *Addition Facts to 20*							**Timeframe:** 14 days		
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		
Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies									
Integration of Technology: digital resources are part of this series									

Materials needed:

- game markers
- paper clips
- pencils
- connecting cubes
- counters
- number cubes
- number cube with 4-9
- double ten-frame mat
- crayons
- number tiles 0-9
- paper bags
- number cards 0-11
- books
- boxes

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Topic 5 Vocabulary:

- doubles plus 1
- doubles plus 2

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will recognize the double relationship and use it as a strategy for remembering addition facts with two like addends. (5-1) ● will master addition facts where the addends are 1 apart. (5-2) ● will master addition facts where the addends are 2 apart. (5-3) ● will solve two-question problems by using the answer to the first question to answer the second question. (5-4) ● will master addition facts where one addend is close to 10. (5-5) ● will master addition facts where one addend is 9. (5-6) ● will master addition facts where one addend is 8. (5-7) ● will use the associative and commutative properties to add three numbers. (5-8) ● will solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. (5-9)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Differentiation

- TE pg. 161C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topic 1 – 6 teacher's guides, workbooks, digital resources, manipulatives

Topic 6									
Content Area: Mathematics									
Topic Title: *Subtraction Facts to 20*						**Timeframe:** 14 days			
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		
Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies									
Integration of Technology: digital resources are part of this series									

Materials needed:

- counters
- paper clips
- pencils
- two-color counters
- double ten-frame mat
- number cards 12-20
- index cards
- containers
- connecting cubes

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Topic 6 Vocabulary:
- related facts
- fact family

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will make 10 to subtract. (6-1) ● will make 10 to solve subtraction story problems. (6-2) ● will find subtraction facts to 18 and learn the relationship between addition and subtract. (6-3) ● will use a part-part-whole model to find the subtraction facts and addition facts in a fact family. (6-4) ● will use a related addition fact to find the missing part in a subtraction problem. (6-5) ● will use related addition facts to solve subtraction problems. (6-6) ● will draw pictures and write number sentences to solve addition and subtraction story problems. (6-7)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

Differentiation
- TE pg. 203C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Resources Provided

- *enVision Math Common Core: Realize Edition* Topic 1 – 6 teacher's guides, workbooks, digital resources, manipulatives

Unit 2 Overview

Content Area: Mathematics

Unit Title: Number and Operations in Base Ten

Target Course/Grade Level: Grade 1

Unit Summary

This unit informally introduces children to operations using place value concepts. Students focus on counting by groups of ten, then performing addition and subtraction with groups of ten. It is a large conceptual leap from counting by 1s to using groups of 10 as single units to count. This focus on groups of 10 establishes the foundation on which place value understandings are made. Children work with number charts to look for patterns in our number system. Number charts allow children to see values in the ones place increase until 9, then the value of the ones place decreases to zero while the digit in the tens place is replaced by the next greater digit. Observation of this pattern helps solidify the understanding of our base 10 number system. Children who are successful at finding and describing patterns come to expect order and regularity in the number system (enVision Math, Topic 7 pg. 237B).

Work in this unit builds on the student's ability to count consecutively. Children are introduced to the concept of "one more" and "one less" to describe counting numbers that come immediately before and after a given number. Children come to realize that counting forward is like always adding one more; counting backward is the same as continually taking "one less." Understanding number relationships such as "1 more", "1 less", "10 more", and "10 less" strengthen children's number sense and allows children to compare numbers to determine which is greater and which is less.

This unit continues to strengthen number sense through the use of base-ten blocks and hundreds charts as children work towards adding and subtracting using the traditional algorithm. Students learn to decompose 2-digit numbers into multiples of 10 and some ones, then add the multiples of 10 and then add the ones showing conceptual understanding of how numbers work rather than rote memorization of facts. Students apply the commutative and associative properties of addition when carrying out addition in this manner. *For example, 18 + 20 = (10 + 8) + 20 = (10 + 20) + 8 = 30 + 8 = 38.* Following work with addition, students apply the same thinking to solving subtraction situations.

Primary interdisciplinary connections: Reading, Language Arts, Science, Social Studies

21st century themes:

- Critical Thinking/Problem Solving
- Communication
- Collaboration

Unit Rationale

This unit continues to build student's understanding of addition and subtraction. The strategies developed in this unit are based on understanding how our number system works and will eventually lead to students

using the traditional computational algorithms for addition and subtraction in later grades. The understandings developed here give students a solid foundation upon which to build computational fluencies.

Learning Targets

Standards

- 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.2a 10 can be thought of as a bundle of ten ones — called a "ten."
- 1.NBT.B.2b 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.2c 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.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.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.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.

Content Statements

- Extend the counting sequence.
- Understand that the two digits of a two-digit number represent amounts of tens and ones.
- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

	Cumulative Progress Indicator (CPI) from NJDOE Model Curriculum
1.NBT.A.1	• Count to 120, starting at any number less than 120. • Read and write numerals to 120 including representing a number of objects with a written numeral.
1.NBT.B.2a	Compose and decompose numbers to 20 to identify the value of the number in the tens and ones places. Understand that 10 can be thought of as a bundle of ten ones – called a “ten.”
1.NBT.B.2b	Compose and decompose numbers to 20 to identify the value of the number in the tens and ones places. Understand that 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.2c	Decompose two-digit numbers as the sum of tens and ones for numbers less than 100. Understand the decade numbers as a certain number of bundles of 10.

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

1.NBT.B.3	Compare two-digit numbers using <, >, and = symbols.
1.NBT.C.4	Add a 2-digit number and a 1-digit number, and a 2-digit number and a multiple of 10 that sum within 50, using concrete models or drawings. Add by place value: add tens and tens, and ones and ones by decomposing 2-digit numbers into bundles of 10 and some ones, and by making 10. *For example, 18 + 20 = (10 +8) + 20 = (10 + 20) + 8 = 30 + 8 = 38; 37 + 5 = (30 + 7) + 5 = 30 + 12 = (30 + 10) + 2 = 40 + 2 = 42.*
1.NBT.C.5	Mentally find 10 more or 10 less than a number without having to count; explain the reasoning used.
1.NBT.C.6	Subtract multiples of 10 from multiples of 10 (numbers less than 100, differences greater than or equal to zero), explain the reasoning used.

Unit Essential Questions

- Topic 7: What number patterns are there when counting to 120?
- Topic 8: How can numbers 10 and higher be shown, counted, read, and written?
- Topic 9: How can numbers to 100 be compared?
- Topic 10: What are ways to add with tens and ones?
- Topic 11: What are ways to subtract two-digit numbers?

Unit Enduring Understandings

Topic 7:

- Numbers can be used to tell how many.
- Counting and place-value patterns can be seen on a number chart. A number chart shows numbers in order in rows and columns.
- Numbers 11 through 20 can be shown as a group of 10 and up to 10 more.
- The decade numbers are built on groups of ten. The oral names are similar, but not the same as the number of tens counted.
- Counting by 10s can be used to find the total number of objects in a collection of equal groups.
- Some problems can be solved by identifying elements that repeat in a predictable way.

Topic 8:

- Numbers can be used to tell how many.
- Sets of 10 can be perceived as single entities. In a standard numeral, the tens are written to the left of the ones.
- The decade numbers to 100 are built on groups of 10. When there are only tens, counting by 10s can be used to find how many there are in all.
- When objects are grouped in sets of 10 and leftovers (ones), counting the groups of ten and adding ones tells how many there are in all.
- Numbers greater than 10 can be represented as the sum of the tens and the ones.
- Numbers greater than 10 can be named in more than one way and have the same value.
- Some problems can be solved by generating a list of outcomes and organizing that list in a systematic way so all outcomes are accounted

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

for.

Topic 9:

- 1 more, 1 less, 10 more, and 10 less express a relationship between two numbers.
- For two 2-digit numbers, the number with more tens is the greater number. If the 2 numbers have an equal number of tens, then the number with more ones is greater.
- Place value can be used to compare numbers.
- Numbers can be represented on a hundred chart.
- Some problems can be solved by generating a list of outcomes and organizing that list in a systematic way so all outcomes are accounted for.

Topic 10:

- Adding groups of 10 is similar to adding numbers less than 10.
- When adding tens to a 2-digit number, only the tens digit changes.
- There is more than one way to do a mental calculation. Techniques for doing addition calculations mentally involve changing the numbers or the expression so the calculation is easy to do mentally.
- The traditional algorithm for adding a 2-digit number and a 2-digit number starts y adding ones. Sometimes 10 ones need to be regrouped as 1 ten. Then the tens are added.
- Information in a problem can often be shown using a picture or diagram and can be used to understand and solve the problem. Some problems can be solved by writing and completing a number sentence or equation.

Topic 11:

- Subtracting groups of 10 is similar to subtracting numbers less than 10.
- When subtracting tens from a two-digit number, only the tens digit changes.
- There is more than one way to do a mental calculation. Techniques for doing subtraction calculations mentally involve changing the numbers or the expression so the calculation is easy to do mentally.
- Information in a problem can often be shown using a picture or diagram and can be used to understand and solve the problem. Some

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

	problems can be solved by writing and completing a number sentence or equation.

Unit Learning Targets

Students will ...

- count to 120, starting at any number less than 120.
- read and write numerals to 120 including representing a number of objects with a written numeral.
- compose and decompose numbers to 20 to identify the value of the number in the tens and ones places.
- decompose two-digit numbers as the sum of tens and ones for numbers less than 100.
- compare 2-digit numbers using <, >, and = symbols.
- add a 2-digit plus a 1-digit number with sums less than 50.
- add a 2-digit plus a multiple of 10 with sums less than 50
- use concrete models and drawings to add.
- use the addition strategies of decomposition of 2-digit numbers into multiples of 10 and some ones, and "make a 10."
- mentally find ten more than or ten less than a number without having to count.
- subtract multiples of 10 from multiples of 10 (numbers less than 100; differences greater than or equal to zero)
- explain reasoning used to find sums and differences.

Evidence of Learning

Summative Assessment (14 days per topic)

Each topic has a summative test and performance assessment.

Materials needed: listed in each topic as per teacher's guide for that topic.

Teacher Resources:

enVision Math Common Core: Realize Edition Topic 7, *Counting and Number Patterns to 120 enVision Math Common Core: Realize Edition* Topic 8, *Tens and Ones*

enVision Math Common Core: Realize Edition Topic 9, *Comparing Numbers to 100 enVision Math: Realize Edition* Topic 10, *Adding with Tens and Ones enVision Math Common Core: Realize Edition* Topic 11, *Subtracting with Tens and Ones*

Formative Assessments

- teacher observation
- homework
- Lesson *Additional Activity*
- prior knowledge assessment
- guided practice
- Lesson *Quick Check*
- *Daily Core Review*

Topic/Lesson Plans

Topic	Timeframe
Topic 7 *Counting and Number Patterns to 120*	14 days
Topic 8 *Tens and Ones*	14 days

Topic 9 *Comparing Numbers to 100*	14 days

Topic 10 *Adding with Tens and Ones*	14 days
Topic 11 *Subtracting with Tens and Ones*	14 days

Teacher Notes:

This unit consists of five topics from the *enVision Math* series with 5 or 6 lessons per topic. These five topics address the Numbers and Operations – Base Ten domain of the Common Core Standards for Mathematics for Grade 1 students. In addition, these five topics address all eight of the Standards for Mathematical Practice.

Essential questions and enduring understandings were taken directly from the textbook series used by the district, *enVision Math Common Core: Realize Edition*

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

Charles, Randall. *enVision Math Common Core*. Realize ed. Grade 1. Upper Saddle River: Pearson Education, 2015. Print. enVision Math

NJDOE. "Model Curriculum: Mathematics (K-12) - Grade 1." *Model Curriculum: Mathematics (K-12) - Grade 1*. New Jersey Dept. of Education, n.d. Web. 08 Apr. 2015. <http://www.state.nj.us/education/modelcurriculum/math/1.shtml>.

Topic 7

Content Area: Mathematics

Topic Title: *Counting and Number Patterns to 120*	**Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies

Integration of Technology: digital resources are part of this series

Materials needed:

- number cards 4-12
- two-color counters
- number cards 0-11

- number cards 12-20
- double ten-frame
- counters
- number cubes labeled -1, +1, -2, +2, +1, +2, 1
- mini ten-frames
- student scissors
- number chart to 120
- crayons
- connecting cubes
- paper bags

Topic 7 Vocabulary:

- no new vocabulary words

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will read, count, and write numbers 11 to 19. (7-1) ● will show numbers 11 to 19 as 1 or 2 more or fewer than another number. (7-2) ● will count groups of 10, up to 12 tens, and write how many. (7-3) ● will count forward to 120. (7-4) ● will count by 10s to find the total number of items arranged in sets of 10. (7-5) ● will solve problems by finding patterns in a table of related number pairs. (7-6)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

Differentiation

- TE pg. 237C
- embedded within each lesson
- differentiated worksheets/activities for each lesson

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math: Realize Edition* Topics 7-11 teacher's guides, workbooks, digital resources, manipulatives

Topic 8

Content Area: Mathematics

Topic Title: *Tens and Ones* | **Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies

Integration of Technology: digital resources are part of this series

Materials needed:

- number cube 1-6
- game markers
- connecting cubes
- pencils
- rubber bands
- index cards
- zip-top plastic bags
- place value mat
- markers
- number cards 0-11
- clear plastic cups
- large dried beans

Topic 8 Vocabulary:

- tens

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

- ones
- digit
- break apart a ten

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: ● will read and write 2-digit numbers as groups of 10 and some left over. (8-1) ● will count groups of ten, up to 10 tens, and write how many. (8-2) ● will use groups of tens and ones to show and write a given 2-digit number. (8-3) ● will model a 2-digit number and write its expanded form. (8-4) ● will break apart a ten to make 10 ones and write new representations in expanded form. (8-5) ● will use groups of tens and ones to show and write a given 2-digit number. (8-6)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	● readiness tasks and activities (TE pgs. R1 – R4) ● guided practice *Do You Understand?* question ● lesson *Quick Check* ● differentiated activities/worksheets ● leveled homework

Differentiation

- TE pg. 267C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 7-11 teacher's guides, workbooks, digital resources, manipulatives

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Topic 9									
Content Area: Mathematics									
Topic Title: *Comparing Numbers to 100*								**Timeframe:** 14 days	
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		
Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies									
Integration of Technology: digital resources are part of this series									

Materials needed:

- dot cubes
- game markers
- connecting cubes
- index cards
- number cubes
- hundred chart
- place-value mat A
- number cards 0-11
- stackable objects
- paper

Topic 9 Vocabulary:

- 1 more
- 1 less
- 10 more
- 10 less
- greater than
- less than
- equal to (=)

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will write the numbers that are 1 more or 1	**Pre-assessment using readiness activities prior to beginning topic 1.**	• readiness tasks and activities (TE pgs. R1 – R4)

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

less and 10 more or 10 less than a given 2-digit number. (9-1) • will use a hundred chart to show the relationships of 1 more than, 1 less than, 10 more than, 10 less than a given number. (9-2) • will compare 2-digit numbers using models. (9-3) • will compare 2-digit numbers using symbols. (9-4) • will make and organized list showing possible solutions. (9-5)	**Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets • leveled homework

Differentiation
- TE pg. 297C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided
- *enVision Math Common Core : Realize Edition* Topics 7-11 teacher's guides, workbooks, digital resources, manipulatives

Topic 10	
Content Area: Mathematics	
Topic Title: *Adding with Tens and Ones*	**Timeframe:** 14 days
Lesson Components	
21st Century Themes	

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies, Art

Integration of Technology: digital resources are part of this series

Materials needed:

- game markers
- paper clips
- pencils
- index cards
- number cards
- connecting cubes
- hundred chart
- number cards 0-11
- large opaque container
- place-value blocks
- place value mat
- part-part-whole model

Topic 10 Vocabulary:

- regroup

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will add two multiples of 10 for sums to 100. (10-1) • will use a hundred chart to add multiples of 10 to 2-digit numbers. (10-2) • will add a multiple of 10 to a 2-digit number. (10-3) • will add 2-digit numbers and multiples of 10 mentally. (10-4)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets • leveled homework

• will add 1-digit		

numbers to 2-digit numbers with and without regrouping and record the sum in horizontal form. (10-5) ● will solve problems by drawing pictures and writing number sentences. (10-6)	7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	

Differentiation

- TE pg. 323C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 7-11 teacher's guides, workbooks, digital resources, manipulatives

Topic 11	
Content Area: Mathematics	
Topic Title: *Subtracting with Tens and Ones*	**Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies

Integration of Technology: digital resources are part of this series

Materials needed:

- game markers
- number cards 0-9
- counters
- place-value blocks
- tens rods
- hundred chart
- crayons
- colored pencils
- number cards 0-11
- connecting cubes
- large opaque container
- mini ten-frames

Topic 11 Vocabulary:

- no new vocabulary

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will subtract 10 from multiple of 10 in the range of 10-90. (11-1) • will use a hundred chart to subtract multiples of 10 from 2-digit numbers. (11-2)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets

• will subtract a multiple of 10 from a 2-digit number. (11-3) • will subtract multiples of 10 from 2-digit numbers using mental math. (11-4) • will draw a picture and write a number sentence to solve subtraction story problems. (11-5)	4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• leveled homework

Differentiation

- TE pg. 353C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 7-11 teacher's guides, workbooks, digital resources, manipulatives

Unit 3 Overview

Content Area: Mathematics

Unit Title: Measurement and Data

Target Course/Grade Level: Grade 1

Unit Summary

Students begin this unit by measuring objects in the classroom informally (*a* is bigger than ***b*),** then progress to measuring objects with nonstandard units to develop familiarity with the process of measurement. Nonstandard unit measurement may look like using paper clips to measure the length of a textbook. Students use these nonstandard units to practice laying down the unit without gaps or overlaps, counting the number of units used and expressing the length of the object measured as "about _____ units." Students learn that all measurement is approximate and are taught to use the word "about" when recording measurement results.

Students learn to tell time to the half hour on both an analog clock and a digital clock. Use of an analog clock will support fraction number sense in later grades.

Finally, students learn that categorical data can be represented in a concise manner by the use of graphs: real graphs, picture graphs, and bar graphs. Students learn to express information about their environment through these graphs and learn to read the graphs and compare the number of data points in the various categories.

Primary interdisciplinary connections: Reading, Language Arts, Science, Social Studies

21st century themes:

- Critical Thinking/Problem Solving
- Communication
- Collaboration

Unit Rationale

Measurement including telling time, provides a real-world context for mathematics from other strands in the curriculum. Whole numbers, spatial sense, place value, and sorting by attribute can all be connected to the process of measurement. Practice with measurement and choosing appropriate units for the object being measured gives children the opportunity to discover the relationship between the size of the unit chosen and the number of units required to measure a given object. The child will notice over time that the larger the unit of measure is, the fewer of those units are required to measure the object; the smaller the unit of measure, the greater the number of units required. *For example, a child may measure 4 feet tall (large unit – feet), but her height can also be expressed as 48 inches tall (small unit – inches). Note that it only takes 4 of the larger unit, but 48 of the smaller unit.* The understanding of this relationship is needed to convert units of measurement in later grades. The skills learned in this unit are practical and can be put to use right away giving the child a sense of control over his environment.

Representing data in graphs, and then using that data to answer questions is another real-life skill that students can connect with almost daily. As they become familiar with different types of graphs, they can use that knowledge to represent information from their everyday experiences. Graphs are a concise method of sharing information that students will use throughout their school years and careers.

Learning Targets

Standards

- 1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.

- 1.MD.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.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks.
- 1.MD.C.4 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.

Content Statements

- Measure lengths indirectly and by iterating length units.
- Tell and write time.
- Represent and interpret data.

CPI #	Cumulative Progress Indicator (CPI) from NJDOE Model Curriculum
1.MD.A.1	Order three objects by lengths and compare the lengths of two objects by using the third object. *For example, if the crayon is shorter than the marker, and the marker is shorter than the pencil, then the crayon is shorter than the pencil.*
1.MD.A.2	Use an object to measure another object's length by laying multiple copies end to end with no gaps or overlaps giving measurements in whole number units.
1.MD.B.3	Tell and write time to the half-hour using "o'clock" and digital notation.
1.MD.C.4	Organize, represent, and interpret data with up to three categories, and compare the number counts of data points among the categories, using *equal to, more than,* or *less than* another category.

Unit Essential Questions	**Unit Enduring Understandings**
● Topic 12: How can objects be measured, compared, and ordered by length? ● Topic 13: How can clocks and schedules be read and used? ● Topic 14: How can graphs be used to show data and answer questions?	Topic 12 ● Objects can be compared and ordered by length. ● Two objects can be compared indirectly by comparing both to a third object. ● Measurement is a process of comparing a unit to the object being measured. The length of any object can be used as a measurement unit for length. ● Different units can be used to measure length. ● Some problems can be solved by reasoning about the conditions in the problem. Topic 13: ● The hour hand tells the hour, and the minute hand tells the number of minutes after the hour. ● Time to the hour can be shown on an analog clock or on a digital clock and can be written in two ways: o'clock or :00. ● Time can be given to the half hour. ● In order to solve some problems, data need to be selected from a source outside the statement of the problems like a table.

	Topic 14: ● Each type of graph is most appropriate for certain kinds of data. ● Real graphs, picture graphs, and bar graphs make it easy to compare data. ● Tally charts are useful in recording and organizing some kinds of data. ● In a real graph, real objects are arranged in a particular way to make comparisons. ● The key for a picture graph determines the number of pictures needed to represent each number in a set of data. ● Some problems can be solved by making, reading, and analyzing a graph.

Unit Learning Targets
Students will ...

- order three objects by length and compare the lengths of two of the objects by the relationships of the lengths of the objects (if *a* is shorter than *b,* and *b* is shorter than *c*, then *a* is shorter than *c*).
- use an object to measure another object's length without gaps or overlaps.
- give length measurements in whole units.
- tell and write time to the half-hour on both analog and digital clocks.
- organize, represent, and interpret categorical data with up to three categories.
- compare the number of data points in the categories using *equal to, more than* or *less than.*

Evidence of Learning

Summative Assessment (14 days per topic)
Each topic has a summative test and performance assessment.

Materials needed: listed in each topic as per teacher's guide for that topic.

Teacher Resources:
enVision Math: Realize Edition Topic 12, *Length enVision Math: Realize Edition* Topic 13, *Time*
enVision Math: Realize Edition Topic 14, *Using Data to Answer Questions*

Formative Assessments

- teacher observation
- homework
- Lesson *Additional Activity*
- prior knowledge assessment
- guided practice
- Lesson *Quick Check*
- *Daily Common Core Review*

Topic/Lesson Plans

Topic	Timeframe
Topic 12 *Length*	14 days

Topic 13 *Time*	14 days
Topic 14 *Using Data to Answer Questions*	14 days

Teacher Notes:

This unit consists of three topics from the *enVision Math* series with 4 to 7 lessons per topic. These three topics address the Measurement and Data domain of the Common Core Standards for Mathematics for Grade 1 students. In addition, these three topics address all eight of the Standards for Mathematical Practice.

Essential questions and enduring understandings were taken directly from the textbook series used by the district, *enVision Math: Realize Edition*

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

Charles, Randall. *enVision Math Common Core*. Realize ed. Grade 1. Upper Saddle River: Pearson Education, 2015. Print. enVision Math

NJDOE. "Model Curriculum: Mathematics (K-12) - Grade 1." *Model Curriculum: Mathematics (K-12) - Grade 1*. New Jersey Dept. of Education, n.d. Web. 08 Apr. 2015. <http://www.state.nj.us/education/modelcurriculum/math/1.shtml>.

Topic 12

Content Area: Mathematics

Topic Title: *Length*	**Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies

Integration of Technology: digital resources are part of this series

Materials needed:

- connecting cubes

- paper clips
- pencils
- straws
- yarn
- construction paper
- glue
- crayons
- tape
- outdoor items
- 1.25-inch paper clips
- bags

Topic 12 Vocabulary:

- longest
- shortest
- taller
- shorter
- estimate
- measure

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will compare and order lengths of objects. (12-1) • will indirectly compare objects by length. (12-2) • will estimate, measure, and compare lengths of objects by using a nonstandard unit. (12-3) • will use connecting cubes as nonstandard units to measure and compare the lengths and heights of objects. (12-4) • will use nonstandard units to measure the	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Common Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets • leveled homework

length of different		

objects. (12-5) ● will estimate and measure objects in different units. (12-6)		

Differentiation

- TE pg. 379C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 12-14 teacher's guides, workbooks, digital resources, manipulatives

Topic 13									
Content Area: Mathematics									
Topic Title: *Time*							**Timeframe:** 14 days		
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		
Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies									
Integration of Technology: digital resources are part of this series									

Materials needed:

- counters

- paper clips
- pencils
- geared demonstration clock
- number cards 0-11
- number cards 12-20
- analog face clock
- student scissors
- paper fasteners
- sentence strips
- a schedule
- chart paper
- markers

Topic 13 Vocabulary:

- hour hand
- hour
- minute hand
- minute
- o'clock
- half hour
- schedule

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will identify the hour and minute hands on a clock and tell time to the hour. (13-1) • will tell and write time to the hour using digital and analog clocks. (13-2) • will show and tell time to the half hour. (13-3) • will read and use a schedule. (13-4)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets • leveled homework

Differentiation

- TE pg. 409C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 12-14 teacher's guides, workbooks, digital resources, manipulatives

Topic 14	
Content Area: Mathematics	
Topic Title: *Using Data to Answer Questions*	**Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies

Integration of Technology: digital resources are part of this series

Materials needed:

- counters
- paper clips
- pencils
- two-color counters
- sticky notes
- connecting cubes
- index cards
- crayons
- tape

Topic 14 Vocabulary:

- picture graph

- bar graph
- tally mark
- data

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will use a real-object graph to answer questions and draw conclusions. (14-1) • will use a picture graph to answer questions and draw conclusions. (14-2) • will use a bar graph to answer questions and draw conclusions. (14-3) • will organize, represent, and interpret data using tally marks and a tally chart. (14-4) • will collect a set of data and organize it in a real graph. (14-5) • will organize and analyze data using a picture graph. (14-6) • will use data in a table to represent data in a bar graph. (14-7)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets • leveled homework
Differentiation • TE pg. 431C • embedded within each lesson • differentiated worksheets/activities for each lesson • leveled homework for each lesson • reteaching resources at the end of each lesson		

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 12-14 teacher's guides, workbooks, digital resources, manipulatives

Unit 4 Overview

Content Area: Mathematics

Unit Title: Geometry

Target Course/Grade Level: Grade 1

Unit Summary

Topic 15 (Geometry) focuses on giving children experiences with the geometric shapes they find in their environment. They learn to name them, describe them, and combine them to make new shapes. Children work with both two-dimensional (plane) shapes and three-dimensional (solid) figures. While exploring these shapes children learn the attributes that make each shape unique (defining attributes). *For example, a square is a square because it has four sides of equal length and four "square" corners.* They also learn that color and size are not defining attributes because a square is still a square whether it is big or little, orange or purple.

In Topic 16 (Fractions of Shapes) children are introduced to fractions as parts of circles and rectangles. Although limited to halves and fourths, students learn that these special parts of whole shapes must be equal in area even if they are not the same shape. Students learn the names for these equal parts: two equal parts of a whole are called "halves", while four equal parts of a whole are called "fourths," or "quarters." In addition, children are taught how to express the relationship of one of the equal parts to the whole by using the terms "half of," "fourth of," and "quarter of."

Primary interdisciplinary connections: Reading, Language Arts, Science, Social Studies, Art, Music

21st century themes:

- Critical Thinking/Problem Solving
- Communication
- Collaboration

Unit Rationale

Geometric and spatial thinking are important in and of themselves, because they connect mathematics with the physical world, and play an important role in modeling phenomena whose origins are not necessarily physical, for example, as networks or graphs. They are also important because they support the development of number and arithmetic concepts and skills. Thus, geometry is essential for all grade levels

for many reasons: its mathematical content, its roles in physical sciences, engineering, and many other subjects, and its strong aesthetic connections.

Learning Targets

Standards

- **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.
- **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.

Content Statements

- Reason with shapes and their attributes.

1.G.A.1	• Name the attributes of a given two-dimensional shape (square, triangle, rectangle, regular hexagon) and distinguish between defining and non-defining attributes. • Draw and build shapes when given defining attributes (number of sides and/or corners)
1.G.A.2	• Compose two-dimensional shapes to create a composite shape. • Compose three-dimensional shapes to create a composite shape. • Create new shapes from composite shapes.
1.G.A.3	• Partition circles and rectangles into two or four equal shares describing the shares using “halves,” “fourths,”, and “quarters.” • Use the phrases “half of,” “fourth of,” and “quarter of.” • Describe a whole circle (or rectangle) divided into two equal shares as “two of” the shares. • Describe a whole circle (or rectangle) divided into four equal shares as “four of” the shares.

Unit Essential Questions

- Topic 15: How can shapes and solids be described, compared, and used to make other shapes?
- Topic 16: How can fractions be used to name a part of a whole object?

Unit Enduring Understandings

Topic 15:

- Many everyday objects are close approximations of standard plane shapes.
- Plane shapes have many properties that make them different from one another. Many plane shapes can be described by their sides and vertices.
- Plane shapes can be combined to make new plane shapes.
- Many everyday objects closely approximate standard geometric solids.
- Many solid figures are comprised of flat surfaces and vertices.
- Attributes can be used to sort solid figures. Many sets of solid figures can be sorted in more than one way.
- Solid figures can be combined to make other

	solid shapes.

	• Some problems can be solved by generating a list of outcomes and organizing that list in a systematic way so all outcomes are accounted for. • Some problems can be solved by reasoning about the conditions in the problem. Topic 16: • A region can be divided into equal-sized parts in different ways. Equal-sized parts of a region have the same area, but not necessarily the same shape. • Information in a problem can often be shown using a picture or diagram and used to understand and solve the problem.

Unit Learning Targets
Students will ...

- name the attributes of squares, triangles, rectangles, and regular hexagons.
- know that defining attributes of shapes are the number of sides, and the number of corners.
- distinguish between defining and non-defining attributes of two-dimensional shapes.
- draw and build shapes when given defining attributes.
- compose two-dimensional or three-dimensional shapes to make composite shapes.
- make new shapes from composite shapes.
- partition circles and rectangles in to two or four equal shares using "halves," "fourths," and "quarters" to describe the equal shares.
- use the phrases "half of," "fourth of," and "quarter of" when describing the relationship between the equal share and the whole.

Evidence of Learning

Summative Assessment (14 days per topic)
Each topic has a summative test and performance assessment.

Materials needed: listed in each topic as per teacher's guide for that topic.

Teacher Resources:
enVision Math Common Core: Realize Edition Topic 15, *Geometry*
enVision Math Common Core: Realize Edition Topic 16, *Fractions of Shapes*

Formative Assessments

- teacher observation
- homework
- Lesson *Additional Activity*
- prior knowledge assessment
- guided practice
- Lesson *Quick Check*
- *Daily Common Core Review*

Topic/Lesson Plans

Topic	Timeframe
Topic 15	

Geometry	14 days
Topic 16 *Fractions of Shapes*	14 days

Teacher Notes:
This unit consists of two topics from the *enVision Math* series with 4 or 10 lessons per topic. These two topics address the Geometry domain of the Standards for Mathematics for Grade 1 students. In addition, these two topics address all eight of the Standards for Mathematical Practice.

Essential questions and enduring understandings were taken directly from the textbook series used by the district, *enVision Math: Realize Edition*

Curriculum Development Resources
Click the links below to access additional resources used to design this unit:

Charles, Randall. *enVision Math Common Core*. Realize ed. Grade 1. Upper Saddle River: Pearson Education, 2015. Print. enVision Math

NJDOE. "Model Curriculum: Mathematics (K-12) - Grade 1." *Model Curriculum: Mathematics (K-12) - Grade 1*. New Jersey Dept. of Education, n.d. Web. 08 Apr. 2015. <http://www.state.nj.us/education/modelcurriculum/math/1.shtml>.

Common Core Standards Writing Team. (2013, September 19). *Progressions for the Common Core State Standards in Mathematics (draft). Grades K–5, Geometry*. Tucson, AZ: Institute for Mathematics and Education, University of Arizona.

Topic 15									
Content Area: Mathematics									
Topic Title: *Geometry*							**Timeframe:** 14 days		
Lesson Components									
21st Century Themes									
	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy
21st Century Skills									
	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration		

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies, Art

Integration of Technology: digital resources are part of this series

Materials needed:

- number cube 1-3
- snap cubes
- counters
- chart paper
- pattern blocks
- construction paper
- plane shape cards (Teaching Tool 20)
- solid figures
- clay
- pipe cleaners

Topic 15 Vocabulary:

- plane shapes
- hexagon
- trapezoid
- sort
- side
- corner
- solid figure
- cube
- rectangular prism
- sphere
- cylinder
- cone
- flat surface
- vertex (vertices)
- pyramid

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will use defining attributes to identify	**Pre-assessment using readiness activities prior to beginning topic 1.**	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You*

and name standard plane shapes and recognize them in the environment. (15-1)	**Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary	*Understand?* question • lesson *Quick Check*

• will make organized lists to solve problems. (15-2) • will sort plane shapes and identify their properties. (15-3) • will combine plane shapes to make different pictures. (15-4) • will combine two-dimensional geometric shapes to make new two-dimensional geometric shapes. (15-5) • will identify and name standard geometric solids and recognize them in the environment. (15-6) • will count the number of flat surfaces and vertices on geometric solids. (15-7) • will identify geometric solids (sphere, cone, cylinder, rectangular prism, and cube) and sort by various attributes. (15-8) • will combine solid figures to make new solid figures. (15-9) • will identify defining and non-defining attributes of plane shapes and solid figures. (15-10)	introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• differentiated activities/worksheets • leveled homework

Differentiation

- TE pg. 465C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson

- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math: Realize Edition* Topics 15-16 teacher's guides, workbooks, digital resources, manipulatives

Topic 16

Content Area: Mathematics

Topic Title: *Fractions of Shapes*	**Timeframe:** 14 days

Lesson Components

21st Century Themes

	Global Awareness	x	Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy		Environmental Literacy

21st Century Skills

	Creativity and Innovation	x	Critical Thinking and Problem Solving	x	Communication	x	Collaboration

Interdisciplinary Connections: Reading, Language Arts, Science, Social Studies, Art, Music

Integration of Technology: digital resources are part of this series

Materials needed:

- counters
- game markers
- number cube
- paper
- boxes
- crayons
- index cards
- paper plates
- paste
- student scissors

Topic 16 Vocabulary:

- equal parts
- halves
- fourths
- quarters
- half of
- fourth of
- quarter of

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

- two of
- four of

Goals/Objectives	Learning Activities/Instructional Strategies	Formative Assessment Tasks
Students: • will determine whether a shape is divided into equal or unequal parts. (16-1) • will describe equal parts of a shape. (16-2) • will identify halve and fourths of circles and rectangles. (16-3) • will draw pictures to solve problems related to parts of a whole. (16-4)	**Pre-assessment using readiness activities prior to beginning topic 1.** **Lesson Sequence** 1. Interactive Math Story 2. Topic Opener: game and vocabulary introduction 3. Daily Core Review 4. Problem-Based Interactive Learning Activity 5. Develop the Concept: Visual Learning a. Guided Practice b. Independent Practice and Problem Solving 6. Close/Assess and Differentiate 7. lesson *Quick Check* a. prescribe differentiated instruction b. assess leveled homework	• readiness tasks and activities (TE pgs. R1 – R4) • guided practice *Do You Understand?* question • lesson *Quick Check* • differentiated activities/worksheets • leveled homework

Differentiation

- TE pg. 511C
- embedded within each lesson
- differentiated worksheets/activities for each lesson
- leveled homework for each lesson
- reteaching resources at the end of each lesson

Resources Provided

- *enVision Math Common Core: Realize Edition* Topics 15-16 teacher's guides, workbooks, digital resources, manipulatives

LESSON REFLECTION

Reflect on the lesson you have developed and rate the degree to which the lesson ***Strongly, Moderately*** or ***Weakly*** meets the criteria below.

Lesson Activities:	**Strongly**	**Moderately**	**Weakly**
Are challenging and require higher order thinking and problem solving skills			
Allow for student choice			
Provide scaffolding for acquiring targeted knowledge/skills			
Integrate global perspectives			
Integrate 21st century skills			
Provide opportunities for interdisciplinary connection and transfer of knowledge and skills			
Foster student use of technology as a tool to develop critical thinking, creativity and innovation skills			
Are varied to address different student learning styles and preferences			
Are differentiated based on student needs			
Are student-centered with teacher acting as a facilitator and co-learner during the teaching and learning process			
Provide means for students to demonstrate knowledge and skills and progress in meeting learning goals and objectives			
Provide opportunities for student reflection and self-assessment			
Provide data to inform and adjust instruction to better meet the varying needs of learners			

1st Grade Wandell School Math Curricula

Aligned to the New Jersey Student Learning Standards (NJSLS)

ENGAGING STUDENTS • FOSTERING ACHIEVEMENT • CULTIVATING 21ST CENTURY GLOBAL SKILLS

Curriculum Design Template	
Content Area:	
Course Title:	**Grade Level:**

Unit Plan 1	**Pacing Guide**
Unit Plan 1	**Pacing Guide**
Unit Plan 3	**Pacing Guide**
Unit Plan 4	**Pacing Guide**
Unit Plan 5	**Pacing Guide**
Unit Plan 6	**Pacing Guide**

Date Created:
Board Approved on: