

**Hainesport Township School District
211 Broad Street Hainesport, NJ 08036**



**Course Title: Math Grade 1
Board of Education Adoption Date: 8/23/2012
Board of Education Re-adoption Date: 8/28/18, 1/2/2024**

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Course Description and Concepts

In Grade 1, instructional time should focus on four critical areas: developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; developing understanding of whole number relationships and place value, including grouping in tens and ones; developing understanding of linear measurement and measuring lengths as iterating length units; and reasoning about attributes of, and composing and decomposing geometric shapes.

Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., “making tens”) to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement.

Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.

New Jersey Student Learning Standards Math

[New Jersey Student Learning Standards for Mathematics](#)

NJ Technology Standards

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

8.2 Technology Education, Engineering, Design and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

Career Ready Practices

Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

<http://www.state.nj.us/education/cccs/2014/career/CareerReadyPractices.pdf>

Pacing Guide

Unit Topic	Unit #	APX Unit Length
Operations and Algebraic Thinking	I	45 Days
Operations and Algebraic Thinking, Number and Operations in Base Ten	II	45 Days
Operations and Algebraic Thinking, Number Operations in Base Ten, and Measurement & Data.	III	45 Days
Measurement and Data & Geometry	IV	45 Days

Curricular Framework

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice
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<p>Unit 1</p> <p>Add and Subtract within 10</p>	<ul style="list-style-type: none"> ● 1.OA.A.1* ● 1.OA.B.3* ● 1.OA.B.4 ● 1.OA.C.5 ● 1.OA.D.7* ● 1.OA.D.8* ● 1.NBT.A.1* 	<ul style="list-style-type: none"> ● 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 10 ● Work with addition and subtraction equations ● Extend the counting sequence 	<p>MP.1 Make sense of problems and persevere in solving them.</p>
<p><i>Unit 1:</i></p> <p><i>Suggested Open Educational Resources</i></p>	<p>1.OA.A.1 Sharing Markers</p> <p>1.OA.B.3 Domino Addition</p> <p>1.OA.B.4 Cave Game Subtraction</p> <p>1.OA.D.7 Equality Number Sentences</p> <p>1.OA.D.8 Kiri's Mathematics Match Game</p> <p>1.NBT.A.1 Hundred Chart Digit Game</p>		<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p>
<p>Unit 2</p>	<ul style="list-style-type: none"> ● 1.OA.A.1* ● 1.OA.D.7 ● 1.OA.D.8 ● 1.OA.B.3* ● 1.OA.C.6* ● 1.OA.A.2 	<ul style="list-style-type: none"> ● Represent and solve problems involving addition and subtraction ● Work with addition and subtraction equations ● Understand and apply properties of operations and the 	<p>MP.5 Use appropriate tools strategically.</p>

<p>Add and Subtract within 20</p>	<ul style="list-style-type: none"> ● 1.MD.C.4 ● 1.NBT.B.2a-b ● 1.NBT.B.3 ● 1.NBT.A.1* 	<p>relationship between addition and subtraction</p> <ul style="list-style-type: none"> ● Add and subtract within 20 ● Represent and interpret data ● Understand place value ● Extend the counting sequence 	<p>MP.6 Attend to precision.</p>
<p>Unit 2: <i>Suggested Open Educational Resources</i></p>	<p>1.OA.A.1 School Supplies</p> <p>1.OA.D.7 Valid Equalities?</p> <p>1.OA.D.8 Find the Missing Number</p> <p>1.OA.B.3 Doubles?</p> <p>1.OA.C.6 \$20 Dot Map</p> <p>1.OA.A.2 Daisies in vases</p> <p>1.NBT.B.2 Roll & Build</p> <p>1.NBT.B.3 Ordering Numbers</p> <p>1.NBT.A.1 Start/Stop Counting 2</p>		<p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>
<p>Unit 3 Place Value, Measurement & Shapes</p>	<ul style="list-style-type: none"> ● 1.NBT.B.2c ● 1.NBT.C.4* ● 1.NBT.C.5 ● 1.NBT.C.6 ● 1.MD.A.1 ● 1.MD.A.2 ● 1.MD.B.3 ● 1.OA.C.6* 	<ul style="list-style-type: none"> ● Understand place value ● Use place value understanding and properties of operations to add and subtract ● Measure lengths indirectly by iterating length units ● Tell and write time 	

		<ul style="list-style-type: none"> • Add and subtract within 20 	<p>MP.1 Make sense of problems and persevere in solving them.</p>
<p>Unit 3: <i>Suggested Open Educational Resources</i></p>	<p>1.NBT.C.4 Ford and Logan Add 45+36</p> <p>1.NBT.C.5 Number Square</p> <p>1.MD.A.2 Measure Me!</p> <p>1.MD.A.2 Measuring Blocks</p> <p>1.MD.A.2 Growing Bean Plants</p> <p>1.MD.B Making a clock</p> <p>1.OA.C.6 Making a ten</p>		<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p>
<p>Unit 4 Reason with Shapes and their Attributes</p>	<ul style="list-style-type: none"> • 1.G.A.1 • 1.G.A.2 • 1.G.A.3 • 1.OA.A.1* • 1.OA.C.6* • 1.NBT.A.1* • 1.NBT.C.4* 	<ul style="list-style-type: none"> • Reason with shapes and their attributes • Represent and solve problems involving addition and subtraction. • Add and subtract within 20 • Extend the counting sequence • Use place value understanding and properties of operations to add and subtract 	<p>MP.5 Use appropriate tools strategically.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>

Unit 4: Suggested Open Educational Resources	1.G.A.1 All vs. Only some 1.G.A.1 3-D Shape Sort 1.G.A.2 Make Your Own Puzzle 1.G.A.2 Overlapping Rectangles 1.G.A.3 Equal Shares 1.OA.A.1 Twenty Tickets 1.NBT.A.1 Where Do I Go?	MP.8 Look for and express regularity in repeated reasoning.
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Unit 1 Grade 1		
Content Standards	Suggested Mathematical Practices	Critical Knowledge & Skills
<ul style="list-style-type: none"> • 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, <i>e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i> *(benchmarked) 	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): <ul style="list-style-type: none"> • Symbol (unknowns) can be in any position. Students are able to: <ul style="list-style-type: none"> • add, using objects and drawings, to solve word problems involving situations of adding to and putting together. • subtract, using objects and drawings, to solve world problems involving situations of taking from and taking apart. <p style="text-align: center;">Learning Goal 1: Use addition and subtraction <u>within 10</u> to solve problems, including word problems involving situations of adding to,</p>

	MP.8 Look for and express regularity in repeated reasoning.	taking from, putting together, taking apart, and comparing with unknowns in all positions.
<ul style="list-style-type: none"> 1.OA.B.3. Apply properties of operations as strategies to add and subtract. <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.) (Students need not use formal terms for these properties) *(benchmarked)</i> 	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): <ul style="list-style-type: none"> Knowing $4 + 3$ means that $3 + 4$ is also known (commutative property/fact families). When adding , the numbers need not be added in any particular order. Students are able to: <ul style="list-style-type: none"> add and subtract, within 10, using properties of operations as strategies (commutative property). <p style="text-align: center;">Learning Goal 2: Apply properties of operations (commutative property) as strategies to add or subtract <u>within 10</u>.</p>
<ul style="list-style-type: none"> 1.OA.B.4. Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8</i> 	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): <ul style="list-style-type: none"> Subtraction can be represented as an unknown-addend problem. Finding 9 minus 3 means solving $? + 3 = 9$ or $3 + ? = 9$ (fact families). Students are able to: <ul style="list-style-type: none"> represent subtraction as an unknown addend problem. solve subtraction problems, <u>within 10</u>, using unknown addends. <p style="text-align: center;">Learning Goal 3: Solve subtraction problems, <u>within 10</u>, by representing subtraction as an unknown added problem and finding the unknown addend</p>
<ul style="list-style-type: none"> 1.OA.C.5. Relate counting to addition and subtraction (e.g., by counting 2 to add 2). 	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): <ul style="list-style-type: none"> Counting can be used to add and subtract.

		<p>Students are able to:</p> <ul style="list-style-type: none"> ● count on to add. ● count back to subtract. <p>Learning Goal 4: Count on to add and count backwards to subtract to solve addition and subtraction problems <u>within 10</u>.</p>
<ul style="list-style-type: none"> ● 1.OA.D.7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <i>For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</i> 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> ● The meaning of the equal sign ● True and false statements ● The expression can be on the right side of the equal sign (e.g. $7 = 8 - 1$). ● Both the left and right side of the equal sign may contain expressions (e.g. $5 + 2 = 1 + 4$). <p>Students are able to:</p> <ul style="list-style-type: none"> ● determine if addition equations are true or false. ● determine if subtraction equations are true or false. <p>Learning Goal 5: Determine if addition and subtraction equations, <u>within 10</u>, are true or false.</p>
<ul style="list-style-type: none"> ● 1.OA.D.8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.</i> *(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <ul style="list-style-type: none"> ● determine the unknown number that makes an equation true. ● solve addition or subtraction equations by finding the missing whole number. <p>Learning Goal 6: Solve addition and subtraction equations, <u>within 10</u>, by finding the missing whole number in any position.</p>

<ul style="list-style-type: none"> 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 *(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Number names and the count sequence up to 100 <p>Students are able to:</p> <ul style="list-style-type: none"> count orally by ones <u>up to 100</u>. count up to 100 beginning at any number less than 100. read numerals up to 100. write numerals up to 100. represent a number of objects up to 100 with a written number. <p>Learning Goal 7: Count to 100 orally, read and write numerals, and write numerals to represent the number of objects (<u>up to 100</u>).</p>
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Unit 1 Overview (Operations and Algebraic Thinking)

Content Area	Mathematics
Unit Title	Operations and Algebraic Thinking
Grade Level	Grade 1
Recommended Pacing	APX: 40-45 Days
Unit Summary	In this unit of study students will develop addition concepts, subtraction concepts, and addition strategies.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices	CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason.

<ul style="list-style-type: none"> • Communicating with students • Using questioning and discussion techniques • Engaging students in learning • Using assessment in instruction • Demonstrating Flexibility and Responsiveness 	<p>CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.</p>
<p>Core Instructional Materials</p>	<p>enVisions Math Pearson Realize IXL GSuite for Education Projector Internet resources Activity handouts from the teacher Presentations via technology including educational videos on Safari and youtube.com · Subject software Internet resources Presentations via technology, including documentaries and videos from Safari, youtube.com and teacher-created materials.</p>

Standard(s)/Mathematical Concepts
<p>Mathematical Practice Standards:</p> <ul style="list-style-type: none"> • MP1: Make sense of problems and persevere in solving them. • MP2: Reason abstractly and quantitatively • MP3: Construct viable arguments and critique the reasoning of others. • MP4: Model with mathematics. • MP5: Use appropriate tools strategically. • MP6: Attend to precision. • MP7: Look for and make use of structure. • MP8: Look for and express regularity in repeated reasoning. <p>Technology Standards:</p>

- 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. Assess the credibility and accuracy of digital content.
- 8.2 Technology Education, Engineering, Design and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

Progress Indicator(s) #	Progress Indicator Defined
RI.1.1	Ask and answer questions about key details in a text.
RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
RI.1.5	Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text
RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
RI.1.7	Use the illustrations and details in a text to describe its key ideas.
RI.1.10	With prompting and support, read informational texts appropriately complex for grade 1.
8.1.P.A.1	Use an input device to select an item and navigate the screen
8.1.P.A.2	Navigate the basic functions of a browser

8.1.P.A.3	Use digital devices to create stories with pictures, numbers, letters and words
8.1.P.A.4	Use basic technology terms in the proper context in conversation with peers and teachers(e.g., camera, tablet, Internet, mouse, keyboard and printer)
8.1.P.A.5	Demonstrate the ability to access and use resources on a computing device
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments(i.e. Games, museums)
8.1.P.E.1	Use the Internet to explore and investigate questions with a teacher's support
8.1.2.E.1	Use digital tools and online resources to explore a problem or issue
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, <i>e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i> *(benchmarked)
1.OA.B.3.	Apply properties of operations as strategies to add and subtract. <i>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.)</i> <i>(Students need not use formal terms for these properties)</i> *(benchmarked)
1.OA.B.4.	Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8</i>
1.OA.C.5.	Relate counting to addition and subtraction (e.g., by counting 2 to add 2).
1.OA.D.7.	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <i>For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</i>

1.OA.D.8.	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.</i> *(benchmarked)
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 *(benchmarked)

District/School Formative Assessment Plan	District/School Summative Assessment Plan
<p><i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i></p> <ul style="list-style-type: none"> ● Mathematical Vocabulary Activities ● Assessment Item Analysis ● UDL Menu ● Do Now / Exit Ticket ● Teacher / Student Questioning ● Class / Small Group Discussion ● Organizers ● Peer / Self Assessment ● Visual Presentations ● Think Pair Share ● Teacher Observation / Anecdotal Records ● Computer Based Applications/Programs ● Practice Presentations ● Homework Activities 	<p><i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i></p> <ul style="list-style-type: none"> ● Unit Test 1 Assessment 1 (Pre Progress Reporting Period 1) ● Unit Test 1 Assessment 2 ● Teacher Constructed Standards Based Quiz 1(Pre Progress Reporting Period 1) ● Teacher Constructed Standards Based Quiz 2 ● Alternative Assessment Teacher Constructed 1 (Pre Progress Reporting Period 1) ● Alternative Assessment Teacher Constructed 2
District/School Writing Tasks	
<p>Primary Focus <i>This is connected to the types of writing as indicated in the standards:</i></p>	<p>Routine Writing <i>This is daily writing or writing that is done several times over a week.</i></p>

- Informational/Explanatory
- Research

- Text Dependent Writing (TDQ)
- Quickwrites
- Routine Writing

Unit Essential Questions

- How can you model adding within 10?
- How can you subtract numbers from 10 or less?
- How do you solve addition problems?

Unit Enduring Understandings

- 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 10.
- Work with addition and subtraction equations.
- Represent and solve problem solving 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.
- Extend the counting sequence.
- Understand place value.
- Use place value understanding and properties of operations to add and subtract.
- Measure lengths indirectly and iterating length units.
- Tell and write time.
- Reasons with shapes and their attributes.
- Represent and interpret data.

Key Vocabulary

- addition sentence
- is equal to =
- plus +
- sum
- add
- zero
- addends
- order
- compare
- difference
- fewer
- minus
- more
- subtract
- subtraction sentence
- count on
- Doubles
- doubles plus one
- doubles minus one
- make a ten

Unit Learning Targets (Students will do...)

- Draw pictures show adding to.
- Model adding to a group.
- Model putting together.
- Solve addition problems by making a model.
- Describe what happens when you add 0 to a number.
- Add addends in any order.
- Show all the ways to make a number.
- Describe why are some addition facts easy to add.
- Show taking from with pictures.
- Model taking from a group.
- Model taking apart.
- Solve subtraction problems by making a model.
- Use pictures to compare and subtract.

- Use models to compare and subtract.
- Subtract 0 from a number.
- Show all the ways to take a number apart.
- Change the order of the addends when you add.
- Count on 1, 2, or 3.
- Know doubles facts.
- Use doubles to help you add.
- Use doubles to find other sums.
- Solve addition fact problems.
- Use a ten frame to add 10 and some more.
- Use the make a ten strategy to add.
- Make a ten to help you add.
- Add three addends.
- Group numbers to add three addends.
- Solve addition word problems by drawing a picture.

Instructional Best Practices and Exemplars

Instructional Best Practices and Exemplars
[Instructional Best Practices](#)
 (Please see information in attached link)

Unit 2 Grade 1

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
<ul style="list-style-type: none"> ● 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, <i>e.g., by using objects, drawings, and equations with a symbol</i> 	<p>MP.1 Make sense of problems and persevere in solving them.</p> <p>MP.2 Reason abstractly and quantitatively.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> ● Symbols can be used to represent unknown numbers. ● The symbol (unknowns) can be in any position. <p>Students are able to:</p>

<p><i>for the unknown number to represent the problem. *(benchmarked)</i></p>	<p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.5 Use appropriate tools strategically.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<ul style="list-style-type: none"> • add, using drawings and equations, to solve word problems involving situations of adding to and putting together. • subtract, using drawings and equations, to solve world problems involving situations of taking from and taking apart. <p>Learning Goal 1: Use addition and subtraction <u>within 20</u> to solve problems, including word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.</p>
<ul style="list-style-type: none"> • 1.OA.D.7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <i>example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. *(benchmarked)</i> 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <ul style="list-style-type: none"> • determine if addition equations are true or false • determine if subtraction equations are true or false <p>Learning Goal 2: Determine if addition and subtraction equations, <u>within 20</u>, are true or false.</p>
<ul style="list-style-type: none"> • 1.OA.D.8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$. *(benchmarked)</i> 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <ul style="list-style-type: none"> • determine the unknown number that makes an equation true. • solve addition or subtraction equations by finding the missing whole number. <p>Learning Goal 3: Solve addition and subtraction equations, <u>within 20</u>, by finding the missing whole number in any position.</p>
<ul style="list-style-type: none"> • 1.OA.B.3. Apply properties of operations as strategies to add and subtract. <i>Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known.</i> 	<p>MP.2 Reason abstractly and quantitatively.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> • When adding, the numbers need not be added in order.

<p><i>(Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.) (Students need not use formal terms for these properties) *(benchmarked)</i></p>	<p>MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.</p>	<ul style="list-style-type: none"> To add $2 + 6 + 4$, the second two numbers can be added first to make a ten. [e.g., $2 + 6 + 4 = 2 + 10 = 12$ (Associative Property)] <p>Students are able to:</p> <ul style="list-style-type: none"> add and subtract, within 20, using properties of operations as strategies. (Associative Property) <p>Learning Goal 4: Apply properties of operations as strategies (Associative Property) to add or subtract <u>within 20</u>.</p>
<ul style="list-style-type: none"> 1.OA.C.6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as <u>counting on</u>; <u>making ten</u> (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); <u>decomposing a number leading to a ten</u> (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); <u>using the relationship between addition and subtraction</u> (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and <u>creating equivalent but easier or known sums</u> (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).*(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Different strategies can be used to add and subtract. <p>Students will be able to:</p> <ul style="list-style-type: none"> add and subtract <u>within 20</u>, using the following strategies: <ul style="list-style-type: none"> counting on; making ten; composing numbers; decomposing numbers leading to a ten; relationship between addition and subtraction, and creating equivalent but easier or known sums. fluently add or subtract whole numbers <u>within 20</u>. <p>Learning Goal 5: Add and subtract whole numbers <u>within 20</u> using various strategies: counting on, making ten, composing, decomposing, relationship between addition and subtraction, creating equivalent but easier or known sums, etc.</p>

<ul style="list-style-type: none"> 1.OA.A.2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, <i>e.g.</i>, by using <i>objects, drawings, and equations with a symbol for the unknown number to represent the problem</i> 	<p>MP.1 Make sense of problems and persevere in solving them.</p> <p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.5 Use appropriate tools strategically.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Symbols can be used to represent unknown numbers. The symbol (unknowns) can be in any position. <p>Students are able to:</p> <ul style="list-style-type: none"> use <i>objects and drawings</i> to represent word problems that call for less than or equal to 20. <p>Learning Goal 6: Solve addition word problems with three whole numbers with sums less than or equal to 20.</p>
<ul style="list-style-type: none"> 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. 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.5 Use appropriate tools strategically.</p> <p>MP.6 Attend to precision.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Numbers can be organized to represent data. <p>Students are able to:</p> <ul style="list-style-type: none"> organize objects, representing data, in up to three categories. represent data with objects, drawings, or numerals, in up to three categories. ask and answer questions about: <ul style="list-style-type: none"> the total number of data points; the number of data points in each category, and how many more or less are in one category than in another. <p>Learning Goal 7: Organize, represent, and interpret data with up to three categories, compare the number of data points among the categories, and find the total number of data points.</p>

<ul style="list-style-type: none"> 1.NBT.B.2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 1.NBT.B.2. a. 10 can be thought of as a bundle of ten ones — called a "ten." 1.NBT.B.2. b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Two digits represent amounts of tens and ones. 10 can be thought of as a bundle of ten ones — called a <i>ten</i>. <p>Students are able to:</p> <ul style="list-style-type: none"> compose numbers to 20. decompose numbers to 20. identify the value of the number in the tens or ones place. <p>Learning Goal 8: Compose and decompose numbers <u>to 20</u> to identify the value of the number in the tens and ones place.</p>
<ul style="list-style-type: none"> 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 $<$. 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Use place value understanding to compare two digit numbers. Comparing numbers using symbols. <p>Students are able to:</p> <ul style="list-style-type: none"> use the meaning of tens and ones digits to compare 2 two-digit numbers using $>$, $=$, and $<$ symbols. <p>Learning Goal 9: Use the meaning of tens and ones digits to record comparisons of 2 two-digit numbers using $>$, $=$, and $<$ symbols.</p>
<ul style="list-style-type: none"> 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 *(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Number names and the count sequence up to 120. <p>Students are able to:</p> <ul style="list-style-type: none"> count orally by ones <u>up to 120</u>. count up to 120 beginning at any number less than 120. read numerals up to 120.

		<ul style="list-style-type: none"> • write numerals up to 120. • represent a number of objects up to 120 with a written number. <p>Learning Goal 10: Count to 120 orally, read and write numerals, and write numerals to represent the number of objects (<u>up to 120</u>).</p>
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Unit 2 Overview (Operations and Algebraic Thinking, Number and Operations in Base Ten)

Content Area	Mathematics
Unit Title	Operations and Algebraic Thinking, Number and Operations in Base Ten
Grade Level	Grade 1
Recommended Pacing	APX: 45 Days
Unit Summary	In this unit of study students will utilize subtraction strategies, develop addition and subtraction relationships and count and model numbers.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices <ul style="list-style-type: none"> • Communicating with students • Using questioning and discussion techniques • Engaging students in learning • Using assessment in instruction • Demonstrating Flexibility and Responsiveness 	CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.
Core Instructional Materials	enVisions Math

	Pearson Realize IXL GSuite for Education Projector Internet resources Activity handouts from the teacher Presentations via technology including educational videos on Safari and youtube.com · Subject software Internet resources Presentations via technology, including documentaries and videos from Safari, youtube.com and teacher-created materials.
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Standard(s)/Mathematical Concepts

Mathematical Practice Standards:

- MP1: Make sense of problems and persevere in solving them.
- MP2: Reason abstractly and quantitatively
- MP3: Construct viable arguments and critique the reasoning of others.
- MP4: Model with mathematics.
- MP5: Use appropriate tools strategically.
- MP6: Attend to precision.
- MP7: Look for and make use of structure.
- MP8: Look for and express regularity in repeated reasoning.

Technology Standards:

- 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. Assess the credibility and accuracy of digital content.
- 8.2 Technology Education, Engineering, Design and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

Progress Indicator(s) #	Progress Indicator Defined
RI.1.1	Ask and answer questions about key details in a text.
RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
RI.1.5	Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text
RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
RI.1.7	Use the illustrations and details in a text to describe its key ideas.
RI.1.10	With prompting and support, read informational texts appropriately complex for grade 1.
8.1.P.A.1	Use an input device to select an item and navigate the screen
8.1.P.A.2	Navigate the basic functions of a browser
8.1.P.A.3	Use digital devices to create stories with pictures, numbers, letters and words
8.1.P.A.4	Use basic technology terms in the proper context in conversation with peers and teachers(e.g., camera, tablet, Internet, mouse, keyboard and printer)
8.1.P.A.5	Demonstrate the ability to access and use resources on a computing device
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments(i.e. Games, museums)

8.1.P.E.1	Use the Internet to explore and investigate questions with a teacher's support
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, <i>e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i> *(benchmarked)
1.OA.D.7.	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. <i>example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</i> *(benchmarked)
1.OA.D.8.	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.</i> *(benchmarked)
1.OA.B.3.	Apply properties of operations as strategies to add and subtract. <i>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.)</i> <i>(Students need not use formal terms for these properties)</i> *(benchmarked)
1.OA.C.6.	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as <u>counting on</u> ; <u>making ten</u> (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); <u>decomposing a number leading to a ten</u> (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); <u>using the relationship between addition and subtraction</u> (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and <u>creating equivalent but easier or known sums</u> (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$). *(benchmarked)
1.OA.A.2.	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, <i>e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i>
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.
1.NBT.B.2.	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases

1.NBT.B.2. a.	10 can be thought of as a bundle of ten ones — called a "ten."
1.NBT.B.2. b.	The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
1.NBT.B.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.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 <i>*(benchmarked)</i>

District/School Formative Assessment Plan	District/School Summative Assessment Plan
<p><i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i></p> <ul style="list-style-type: none"> ● Mathematical Vocabulary Activities ● Assessment Item Analysis ● UDL Menu ● Do Now / Exit Ticket ● Teacher / Student Questioning ● Class / Small Group Discussion ● Organizers ● Peer / Self Assessment ● Visual Presentations ● Think Pair Share ● Teacher Observation / Anecdotal Records ● Computer Based Applications/Programs ● Practice Presentations ● Homework Activities 	<p><i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i></p> <ul style="list-style-type: none"> ● Unit Test 2 Assessment 1 (Pre Progress Reporting Period 1) ● Unit Test 2 Assessment 2 ● Teacher Constructed Standards Based Quiz 1(Pre Progress Reporting Period 1) ● Teacher Constructed Standards Based Quiz 2 ● Alternative Assessment Teacher Constructed 1 (Pre Progress Reporting Period 1) ● Alternative Assessment Teacher Constructed 2
District/School Writing Tasks	

Primary Focus

This is connected to the types of writing as indicated in the standards:

- Informational/Explanatory
- Research

Routine Writing

This is daily writing or writing that is done several times over a week.

- Text Dependent Writing (TDQ)
- Quickwrites
- Routine Writing

Unit Essential Questions

- How do you solve subtraction problems?
- How can relating addition and subtraction help you learn and understand facts within 20?
- How do you use place value to model, read, and write numbers to 120?

Unit Enduring Understandings

- Utilize subtraction strategies
- Develop addition and subtraction relationships
- Count and model numbers.

Key Vocabulary

- count back
- digit
- hundred
- ones
- ten

Unit Learning Targets (Students will do...)

- Count back 1, 2, or 3.
- Use an addition fact to find the answer to a subtraction fact.
- Use addition to help you find the answer to a subtraction fact?

- Use make a 10 as a strategy to subtract.
- Subtract by breaking apart make a ten.
- Solve subtraction problem situations using the strategy *act it out*.
- Represent and solve problems involving addition and subtraction.
- Represent and solve problems involving addition and subtraction.
- Represent and solve problems involving addition and subtraction.
- Solve addition and subtraction problem situations using the strategy *make a model*.
- Record related facts within 20.
- Identify related addition and subtraction facts within 20.
- Apply the inverse relationship of addition and subtraction.
- Use related facts to determine unknown numbers.
- Use a related fact to subtract.
- Choose an operation and strategy to solve an addition or subtraction word problem.
- Determine if an equation is true or false.
- add and subtract facts within 20 and demonstrate fluency for addition and subtraction within 10.
- Represent and solve problems involving addition and subtraction.
- Represent and solve problems involving addition and subtraction.
- Extend the counting sequence.
- Understand place value.
- Read and write numerals to represent a number of 110 to 120 objects.
- Read and write numerals to represent a number of 100 to 110 objects.
- Solve problems using the strategy make a model.
- Group objects to show numbers to 100 as tens and ones.
- Group objects to show numbers to 50 as tens and ones.
- Use objects, pictures, and numbers to represent tens.
- Use objects, pictures, and numbers to represent a ten and some ones.
- Use models and write to represent equivalent forms of ten and ones.
- Count by tens from any number to extend a counting sequence up to 120.
- Count by ones to extend a counting sequence up to 120.
- Extend the counting sequence.
- Understand place value.
- Use literature to review addition and subtraction concepts and promote understanding of number relationships.

Instructional Best Practices and Exemplars

Instructional Best Practices and Exemplars

Instructional Best Practices
 (Please see information in attached link)

Unit 3 Grade 1

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
<ul style="list-style-type: none"> 1.NBT.B.2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 1.NBT.B.2.c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). *(benchmarked) 	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): <ul style="list-style-type: none"> Two digits represent amounts of tens and ones. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). Students are able to: <ul style="list-style-type: none"> compose tens to make numbers up to 90. decompose numbers up to 90, into tens. identify the value of the number in the tens or ones place. <p style="text-align: center;">Learning Goal 1: Compose and decompose numbers <u>to 90</u> into tens, identifying the value of the number in the tens and ones place.</p>
<ul style="list-style-type: none"> 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 (e.g. base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning 	MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.7 Look for and make use of structure.	Concept(s): <ul style="list-style-type: none"> In adding two-digit numbers, add tens with tens and ones with ones. In adding two-digit numbers, sometimes it is necessary to compose a ten. Students are able to: <ul style="list-style-type: none"> use concrete models and drawings with a strategy based on place value to add a two-digit number and a one-digit number. use concrete models and drawings with properties of operations to add a two-digit number and a one-digit number.

<p>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. *(benchmarked)</p>	<p>MP.8 Look for and express regularity in repeated reasoning.</p>	<ul style="list-style-type: none"> • use concrete models and drawings with a strategy based on place value to add a two-digit number and a multiple of 10. • use concrete models and drawings with properties of operations to add a two-digit number and a multiple of 10. • explain or show how the model relates to the strategy. <p>Learning Goal 2: Add a 2-digit and a 1-digit number using concrete models and drawings with a place value strategy or properties of operations; explain or show how the model relates to the strategy (sums within 100).</p> <p>Learning Goal 3: Add a 2-digit number and a multiple of 10, using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).</p>
<ul style="list-style-type: none"> • 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. 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <ul style="list-style-type: none"> • given a two-digit number, find 10 more than the number without counting. • given a two-digit number, find 10 less than the number without counting. • explain, given a two-digit number, how to find 10 more or ten less than the number without counting. <p>Learning Goal 4: Explain, given a two-digit number, how to find 10 more or ten less than the number without having to count.</p>
<ul style="list-style-type: none"> • 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 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p>	<p>Concept(s): No new concept(s) introduced</p> <p>Students are able to:</p> <ul style="list-style-type: none"> • use concrete models and drawings with a strategy based on place value to subtract a multiple of 10 from a multiple of 10 (both within the range 10-90). • use concrete models and drawings with properties of operations to subtract a multiple of 10 from a multiple of 10 (both within the range 10-90).

<p>method and explain the reasoning used.</p>	<p>MP.5 Use appropriate tools strategically</p> <p>MP.7 Look for and make use of structure.</p>	<ul style="list-style-type: none"> explain or show how the model relates to the strategy. <p>Learning Goal 5: Subtract a multiple of 10 from a multiple of 10 (both within the range 10-90) using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).</p>
<ul style="list-style-type: none"> 1.MD.A.1. Order three objects by length; compare the lengths of two objects indirectly by using a third object 	<p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Objects can be compared and ordered based on length. <p>Students will be able to:</p> <ul style="list-style-type: none"> compare the length of two objects. compare the length of two objects by using a third object as a measuring tool. order three objects by length. <p>Learning Goal 6: Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the marker and the marker is shorter than the pencil then the crayon is shorter than the pencil).</p>
<ul style="list-style-type: none"> 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. <p><i>it to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i></p>	<p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> The length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <p>Students will be able to:</p> <ul style="list-style-type: none"> lay multiple copies of a shorter object (the length unit) end to end. use a shorter object to express the length of a longer object. <p>Learning Goal 7: Order three objects by length and compare the lengths of two objects by using the third object (e.g., if the crayon is shorter than the</p>

		marker and the marker is shorter than the pencil then the crayon is shorter than the pencil).
<ul style="list-style-type: none"> 1.MD.B.3. Tell and write time in hours and half-hours using analog and digital clocks 	<p>MP.6 Attend to precision.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Time is represented on analog and on digital clocks. Analog clocks have <i>hands</i> that indicate the time in hours and minutes. <p>Students are able to:</p> <ul style="list-style-type: none"> tell and write time in hours using analog and digital clocks. tell and write time in half-hours using analog and digital clocks. use the term <i>o'clock</i> in reporting time to the hour. <p>Learning Goal 8: Tell and write time to the half-hour using the term <i>o'clock</i> and using digital notation (include both analog and digital clocks).</p>
<ul style="list-style-type: none"> 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 $6 + 6 + 1 = 12 + 1 = 13$). *(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Different strategies can be used to add and subtract . <p>Students will be able to:</p> <ul style="list-style-type: none"> add and subtract <u>within 20</u>, using the following strategies: <ul style="list-style-type: none"> counting on; making ten; composing numbers; decomposing numbers; relationship between addition and subtraction, and creating equivalent but easier or known sums. fluently add or subtract whole numbers <u>within 20</u>.

		Learning Goal 9: Add and subtract whole numbers <u>within 20</u> using various strategies: counting on, making ten, composing, decomposing, relationship between addition and subtraction, creating equivalent but easier or known sums, etc
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Unit 3 Overview (Operations and Algebraic Thinking, Number Operations in Base Ten, and Measurement & Data.)	
Content Area	Mathematics
Unit Title	Operations and Algebraic Thinking, Number Operations in Base Ten, and Measurement & Data.
Grade Level	Grade 1
Recommended Pacing	APX: 45 Days
Unit Summary	In this unit of study students will be able to compare numbers, complete two-digit addition and subtraction and measurement principles.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices <ul style="list-style-type: none"> ● Communicating with students ● Using questioning and discussion techniques ● Engaging students in learning ● Using assessment in instruction ● Demonstrating Flexibility and Responsiveness 	CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason. CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.
Core Instructional Materials	enVisions Math

	Pearson Realize IXL GSuite for Education Projector Internet resources Activity handouts from the teacher Presentations via technology including educational videos on Safari and youtube.com · Subject software Internet resources Presentations via technology, including documentaries and videos from Safari, youtube.com and teacher-created materials.
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Standard(s)/Mathematical Concepts

Mathematical Practice Standards:

- MP1: Make sense of problems and persevere in solving them.
- MP2: Reason abstractly and quantitatively
- MP3: Construct viable arguments and critique the reasoning of others.
- MP4: Model with mathematics.
- MP5: Use appropriate tools strategically.
- MP6: Attend to precision.
- MP7: Look for and make use of structure.
- MP8: Look for and express regularity in repeated reasoning.

Technology Standards:

- 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. Assess the credibility and accuracy of digital content.
- 8.2 Technology Education, Engineering, Design and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

Progress Indicator(s) #	Progress Indicator Defined
RI.1.1	Ask and answer questions about key details in a text.
RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.
RI.1.5	Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text
RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
RI.1.7	Use the illustrations and details in a text to describe its key ideas.
RI.1.10	With prompting and support, read informational texts appropriately complex for grade 1.
8.1.P.A.1	Use an input device to select an item and navigate the screen
8.1.P.A.2	Navigate the basic functions of a browser
8.1.P.A.3	Use digital devices to create stories with pictures, numbers, letters and words
8.1.P.A.4	Use basic technology terms in the proper context in conversation with peers and teachers(e.g., camera, tablet, Internet, mouse, keyboard and printer)
8.1.P.A.5	Demonstrate the ability to access and use resources on a computing device
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments(i.e. Games, museums)

8.1.P.E.1	Use the Internet to explore and investigate questions with a teacher's support
8.1.2.E.1	Use digital tools and online resources to explore a problem or issue
RI.1.1	Ask and answer questions about key details in a text.
1.NBT.B.2.	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
1.NBT.B.2.c.	The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). *(benchmarked)
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 (e.g. base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. *(benchmarked)
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.
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. <i>Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i>
1.MD.B.3.	Tell and write time in hours and half-hours using analog and digital clocks.

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 $6 + 6 + 1 = 12 + 1 = 13$). *(benchmarked)
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District/School Formative Assessment Plan	District/School Summative Assessment Plan
<p><i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i></p> <ul style="list-style-type: none"> ● Mathematical Vocabulary Activities ● Assessment Item Analysis ● UDL Menu ● Do Now / Exit Ticket ● Teacher / Student Questioning ● Class / Small Group Discussion ● Organizers ● Peer / Self Assessment ● Visual Presentations ● Think Pair Share ● Teacher Observation / Anecdotal Records ● Computer Based Applications/Programs ● Practice Presentations ● Homework Activities 	<p><i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i></p> <ul style="list-style-type: none"> ● Unit Test 3 Assessment 1 (Pre Progress Reporting Period 1) ● Unit Test 3 Assessment 2 ● Teacher Constructed Standards Based Quiz 1(Pre Progress Reporting Period 1) ● Teacher Constructed Standards Based Quiz 2 ● Alternative Assessment Teacher Constructed 1 (Pre Progress Reporting Period 1) ● Alternative Assessment Teacher Constructed 2
District/School Writing Tasks	
<p>Primary Focus <i>This is connected to the types of writing as indicated in the standards:</i></p> <ul style="list-style-type: none"> ● Informational/Explanatory ● Research 	<p>Routine Writing <i>This is daily writing or writing that is done several times over a week.</i></p> <ul style="list-style-type: none"> ● Text Dependent Writing (TDQ) ● Quickwrites

- Routine Writing

Unit Essential Questions

- How do you use place value to compare numbers?
- How can you add and subtract two-digit numbers?
- How can you measure length and tell time?

Unit Enduring Understandings

- Compare numbers
- Complete two-digit addition and subtraction
- Develop an understanding for measurement principles.

Key Vocabulary

- is greater than >
- is less than <
- longest
- shortest
- hour hand
- half hour
- hour
- minute hand
- minutes

Unit Learning Targets (Students will do...)

- Work with addition and subtraction equations and understand place value.
- Model and compare two-digit numbers to determine which is greater.
- Model and compare two-digit numbers to determine which is less.
- Use symbols for *is less than* “<”, *is greater than* “>”, and *is equal to* “=” to compare numbers.

- Solve problems using the strategy *make a model*.
- Identify numbers that are 10 more 10 less than given numbers.
- Work with addition and subtraction equations and understand place value.
- Work with addition and subtraction equations and understand place value.
- Add and subtract within 20 and use place value understanding and operations to add and subtract.
- Add and subtract within 20.
- Draw a model to add tens.
- Draw a mode to subtract tens.
- Use a hundred chart to find sums.
- Use concrete models to add ones or tens to a two-digit number.
- Make a ten to add a two-digit number and a one-digit number.
- Use tens and ones to add two-digit numbers.
- Solve and explain two-digit addition word problems using the strategy *draw a picture*.
- Use a hundred chart to find sums and differences.
- Add and subtract within 100, including continued practice with facts within 20.
- Add and subtract within 20 and use place value understanding and operations to add and subtract.
- Add and subtract within 20 and use place value understanding and operations to add and subtract.
- Use literature to reinforce data concepts.
- Measure lengths indirectly and by iterating length units.
- Order objects by length.
- Use the Transitivity Principle to measure indirectly.
- Measure length using nonstandard units.
- Make a nonstandard measuring tool to measure length.
- Solve measurement problems using the strategy *act it out*.
- Write times to the hour shown on analog clocks.
- Write times to the half hour shown on analog clocks.
- Tell times to the hour and half hour using analog and digital clocks.
- Use the hour hand to draw and write times on analog and digital clocks.
- Measure lengths indirectly and by iterating length units.
- Measure lengths indirectly and by iterating length units.

Instructional Best Practices and Exemplars

Instructional Best Practices and Exemplars [Instructional Best Practices](#)

(Please see information in attached link)

Unit 4 Grade 1

Content Standards	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
<ul style="list-style-type: none"> 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. 	<p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Defining attributes versus non defining attributes. <p>Students are able to:</p> <ul style="list-style-type: none"> name attributes that define two-dimensional shapes (square, triangle, rectangle, regular hexagon). name attributes that do not two-dimensional shapes. build and draw shapes when given defining attributes. <p>Learning Goal 1: Name the attributes of a given two-dimensional shape (square, triangle, rectangle, regular hexagon), distinguishing between defining and non-defining attributes.</p> <p>Learning Goal 2: Build and draw shapes when given defining attributes.</p>
<ul style="list-style-type: none"> 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 	<p>MP.4 Model with mathematics.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Shapes can be composed from other shapes (e.g. trapezoids can be composed from triangles). New shapes can be composed from composite shapes. <p>Students are able to:</p> <ul style="list-style-type: none"> create a composite shape using two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles).

<p>shape, and compose new shapes from the composite shape.</p>		<ul style="list-style-type: none"> • create a composite shape using three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders). • compose <i>new</i> shapes from the <i>composite</i> shapes. <p>Learning Goal 3: Create a composite shape by composing 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), and compose new shapes from the composite shape.</p>
<ul style="list-style-type: none"> • 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 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.6 Attend to precision.</p> <p>MP.4 Model with mathematics.</p> <p>MP.7 Look for and make use of structure.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> • Shapes can be partitioned into equal parts or shares. • Equal shares are named based on the number of shares that make the whole (e.g. halves, fourths, quarters). • Shares can be described based on their relation to the whole (e.g. <i>half of</i>, <i>fourth of</i>, <i>quarter of</i>). • The whole can be described based on the number of shares. • Decomposing a whole into more equal shares creates smaller shares. <p>Students are able to:</p> <ul style="list-style-type: none"> • partition circles and rectangles into two or four equal shares. • distinguish equal shares from those that are not equal. • describe shares using the words halves, fourths, and quarters. • describe the relationship between the whole and the share using the phrases <i>half of</i>, <i>fourth of</i>, and <i>quarter of</i>. • describe the whole as <i>two of</i>, or <i>four of</i> the shares. • decompose a whole into a greater number of equal shares and identify the new shares as smaller. <p>Learning Goal 4: Partition circles and rectangles into two or four equal shares, describing the shares using halves, fourths, and quarters and use the phrases <i>half of</i>, <i>fourth</i></p>

		<p><i>of</i>, and <i>quarter of</i>. Describe the whole circle (or rectangle) partitioned into two or four equal shares as <i>two of</i>, or <i>four of</i> the shares.</p>
<ul style="list-style-type: none"> 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, <i>e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i> *(benchmarked) 	<p>MP.1 Make sense of problems and persevere in solving them.</p> <p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.5 Use appropriate tools strategically.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Symbols can be used to represent unknown numbers. The symbol (unknowns) can be in any position. <p>Students are able to:</p> <ul style="list-style-type: none"> add, using objects and drawings, to solve word problems involving situations of adding to and putting together. subtract, using objects and drawings, to solve world problems involving situations of taking from and taking apart. <p>Learning Goal 5: Use addition and subtraction <u>within 20</u> to solve problems, including word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.</p>
<ul style="list-style-type: none"> 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 (<i>e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$</i>); decomposing a number leading to a ten (<i>e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$</i>); using the relationship between addition and subtraction (<i>e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$</i>); and creating equivalent but easier or known sums (<i>e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$</i>) *(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> Different strategies can be used to add and subtract. <p>Students will be able to:</p> <ul style="list-style-type: none"> add and subtract <u>within 20</u>, using the following strategies: <ul style="list-style-type: none"> counting on; making ten; composing numbers; decomposing numbers; relationship between addition and subtraction, and

		<ul style="list-style-type: none"> - creating equivalent but easier or known sums. • fluently add or subtract whole numbers <u>within 20</u>. <p>Learning Goal 6: Add and subtract whole numbers <u>within 20</u> using various strategies: counting on, making ten, composing, decomposing, relationship between addition and subtraction, creating equivalent but easier or known sums, etc.</p>
<ul style="list-style-type: none"> • 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. *(benchmarked) 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> • Number names and the count sequence up to 120. <p>Students are able to:</p> <ul style="list-style-type: none"> • count orally by ones <u>up to 120</u>. • count up to 120 beginning at any number less than 120. • read numerals up to 120. • write numerals up to 120. • represent a number of objects up to 120 with a written number. <p>Learning Goal 7: Count to 120 orally, read and write numerals, and write numerals to represent the number of objects (<u>up to 120</u>).</p>
<ul style="list-style-type: none"> • 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 (e.g. base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning 	<p>MP.2 Reason abstractly and quantitatively.</p> <p>MP.3 Construct viable arguments and critique the reasoning of others.</p> <p>MP.4 Model with mathematics.</p> <p>MP.7 Look for and make use of structure.</p> <p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Concept(s):</p> <ul style="list-style-type: none"> • In adding two-digit numbers, add tens with tens and ones with ones. • In adding two-digit numbers, sometimes it is necessary to compose a ten. <p>Students are able to:</p> <ul style="list-style-type: none"> • use concrete models and drawings with a strategy based on place value to add a two-digit number and a one-digit number. • use concrete models and drawings with properties of operations to add a two-digit number and a one-digit number.

<p>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. *(benchmarked)</p>		<ul style="list-style-type: none"> • use concrete models and drawings with a strategy based on place value to add a two-digit number and a multiple of 10. • use concrete models and drawings with properties of operations to add a two-digit number and a multiple of 10. • explain or show how the model relates to the strategy. <p>Learning Goal 8: Add a 2-digit and a 1-digit number using concrete models and drawings with a place value strategy or properties of operations; explain or show how the model relates to the strategy (sums within 100).</p> <p>Learning Goal 9: Add a 2-digit number and a multiple of 10, using concrete models and drawings with a place value strategy or properties of operations. Explain or show how the model relates to the strategy (sums within 100).</p>
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Unit 4 Overview (Measurement and Data & Geometry)	
Content Area	Mathematics
Unit Title	Measurement and Data & Geometry
Grade Level	Grade 1
Recommended Pacing	APX: 45 Days
Unit Summary	In this unit of study students will be able to represent data, develop an understanding of three-dimensional geometry, and two-dimensional geometry.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices	CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason.

<ul style="list-style-type: none"> • Communicating with students • Using questioning and discussion techniques • Engaging students in learning • Using assessment in instruction • Demonstrating Flexibility and Responsiveness 	<p>CRP5. Consider the environmental, social and economic impacts of decisions. CRP6. Demonstrate creativity and innovation. CRP7. Employ valid and reliable research strategies. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.</p>
<p>Core Instructional Materials</p>	<p>enVisions Math Pearson Realize IXL GSuite for Education Projector Internet resources Activity handouts from the teacher Presentations via technology including educational videos on Safari and youtube.com · Subject software Internet resources Presentations via technology, including documentaries and videos from Safari, youtube.com and teacher-created materials.</p>

Standard(s)/Mathematical Concepts
<p>Mathematical Practice Standards:</p> <ul style="list-style-type: none"> • MP1: Make sense of problems and persevere in solving them. • MP2: Reason abstractly and quantitatively • MP3: Construct viable arguments and critique the reasoning of others. • MP4: Model with mathematics. • MP5: Use appropriate tools strategically. • MP6: Attend to precision. • MP7: Look for and make use of structure. • MP8: Look for and express regularity in repeated reasoning. <p>Technology Standards:</p>

- 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge. Assess the credibility and accuracy of digital content.
- 8.2 Technology Education, Engineering, Design and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

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RI.1.5	Know and use various text structures (e.g., sequence) and text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text
RI.1.6	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.
RI.1.7	Use the illustrations and details in a text to describe its key ideas.
RI.1.10	With prompting and support, read informational texts appropriately complex for grade 1.
8.1.P.A.1	Use an input device to select an item and navigate the screen
8.1.P.A.2	Navigate the basic functions of a browser

8.1.P.A.3	Use digital devices to create stories with pictures, numbers, letters and words
8.1.P.A.4	Use basic technology terms in the proper context in conversation with peers and teachers(e.g., camera, tablet, Internet, mouse, keyboard and printer)
8.1.P.A.5	Demonstrate the ability to access and use resources on a computing device
8.1.2.A.4	Demonstrate developmentally appropriate navigation skills in virtual environments(i.e. Games, museums)
8.1.P.E.1	Use the Internet to explore and investigate questions with a teacher’s support
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
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, <i>e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i> *(benchmarked)
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 $6 + 6 + 1 = 12 + 1 = 13$) *(benchmarked)

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. *(benchmarked)
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 (e.g. base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. *(benchmarked)

District/School Formative Assessment Plan	District/School Summative Assessment Plan
<p><i>Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards.</i></p> <ul style="list-style-type: none"> ● Mathematical Vocabulary Activities ● Assessment Item Analysis ● UDL Menu ● Do Now / Exit Ticket ● Teacher / Student Questioning ● Class / Small Group Discussion ● Organizers ● Peer / Self Assessment ● Visual Presentations ● Think Pair Share ● Teacher Observation / Anecdotal Records ● Computer Based Applications/Programs ● Practice Presentations ● Homework Activities 	<p><i>Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.</i></p> <ul style="list-style-type: none"> ● Unit Test 4 Assessment 1 (Pre Progress Reporting Period 1) ● Unit Test 4 Assessment 2 ● Teacher Constructed Standards Based Quiz 1(Pre Progress Reporting Period 1) ● Teacher Constructed Standards Based Quiz 2 ● Alternative Assessment Teacher Constructed 1 (Pre Progress Reporting Period 1) ● Alternative Assessment Teacher Constructed 2
District/School Writing Tasks	
<p>Primary Focus <i>This is connected to the types of writing as indicated in the standards:</i></p>	<p>Routine Writing <i>This is daily writing or writing that is done several times over a week.</i></p>

- Informational/Explanatory
- Research

- Text Dependent Writing (TDQ)
- Quickwrites
- Routine Writing

Unit Essential Questions

- How can graphs and charts help you organize, represent, and interpret data?
- How do you identify and describe three-dimensional shapes?
- How do you sort and describe two-dimensional shapes?

Unit Enduring Understandings

- Represent data.
- Develop an understanding of three-dimensional geometry.
- Develop an understanding of two-dimensional geometry.

Key Vocabulary

- bar graph
- picture graph
- tally chart
- tally mark
- cone
- cube
- curved surface
- cylinder
- flat surface
- rectangular prism
- sphere
- circles
- rectangles
- sides

- square
- triangles
- vertices
- hexagon
- trapezoid
- equal parts
- equal shares
- unequal parts
- unequal shares
- half of
- halves
- fourth of
- fourths
- quarter of
- quarters

Unit Learning Targets (Students will do...)

- Represent and interpret data.
- Analyze and compare data shown in a picture graph where each symbol represents one.
- Make a picture graph where each symbol represents one and interpret the information.
- Analyze and compare data shown in a bar graph.
- Make a bar graph and interpret the information.
- Analyze and compare data shown in a tally chart.
- Make a tally chart and interpret the information.
- Solve problems situations using the strategy make a graph.
- Reason with shapes and their attributes.
- Identify and describe three-dimensional shapes according to defining attributes.
- Compose a new shape by combining three-dimensional shapes.
- Use composite three-dimensional shapes to build new shapes.
- Identify three-dimensional shapes used to build a composite shape using the strategy act it out.
- Identify two-dimensional shapes on three-dimensional shapes.
- Reason with shapes and their attributes.
- Use defining attributes to sort shapes.
- Describe attributes of two-dimensional shapes.
- Use objects to compose new two-dimensional shapes.

- Compose a new shape by combining two-dimensional shapes.
- Make new shapes from composite two-dimensional shapes using the strategy *act it out*.
- Decompose combined shapes into shapes
- Decompose two-dimensional shapes into parts.
- Identify equal and unequal parts (or shares) in two-dimensional shapes.
- Partition circles and rectangles into two equal shares.
- Partition circles and rectangles into four equal shares.

Instructional Best Practices and Exemplars

Instructional Best Practices and Exemplars
[Instructional Best Practices](#)
 (Please see information in attached link)

Modifications for SpEd/ESL/Students at Risk/Gifted

- Complete fewer or different homework problems than peers
- Write shorter papers
- Supports, Accommodations, and Modifications must be provided as stated in IEP, 504 Plan, or I&RS Intervention Plan, and may include (but are not limited to) the following:

Presentation accommodations:

- Listen to audio recordings instead of reading text
- Learn content from audio books, movies, videos and digital media instead of reading print versions
- Use alternate texts at lower readability level
- Work with fewer items per page or line and/or materials in a larger print size
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Have another student share class notes with him
- Be given an outline of a lesson

- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use visual presentations of verbal material, such as word webs and visual organizers
- Use manipulatives to teach or demonstrate concepts
- Have curriculum materials translated into native language

Response accommodations:

- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes or give responses in class
- Use a calculator or table of "math facts"
- Respond directly in the test booklet rather than on an answer sheet. Setting accommodations:
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher, away from distractions)
- Use special lighting or acoustics
- Take a test in small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing accommodations:

- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling accommodations:

- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization skills accommodations:

- Use an alarm to help with time management
- Mark texts with a highlighter
- Have help coordinating assignments in a book or planner
- Receive study skills instruction

Assignment modifications:

- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum modifications:

- Learn different material
- Get graded or assessed using a different standard than the one for classmates