Hainesport Township School District
211 Broad Street Hainesport, NJ 08036

Course Title: Math Grade Kindergarten
Board of Education Adoption Date: 8/23/2012
Board of Education Re-adoption Date: 8/28/2018, 1/2/2024

District Administration

Joseph R. Corn, Superintendent
Ramon W. Santiago, Principal 5-8 & Curriculum and Instruction
Julia B.Wolfrom, Principal PreK-4 & Special Services
Alexander F. Fisher, Assistant Principal
Christopher C. DeSanto, Assistant Principal

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Course Description and Concepts

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

Students will use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as 5 + 2 = 7 and 7 – 2 = 5. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

Students will describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

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
Connecting Counting to Cardinality	I	45 Days
Counting, Addition & Subtraction	II	45 Days
Place Value & Measurement	III	45 Days

Place Value & Geometric Shapes	IV	45 Days

Curricular Framework

Overview	Standards for Mathematical Content	Unit Focus	Standards for Mathematical Practice
Unit 1 **Connecting Counting to Cardinality**	• K.CC.A.1* • K.CC.A.3* • K.CC.B.4 • K.CC.B.5* • K.OA.A.1* • K.MD.B.3* • K.G.A.1	• Know number names and the count sequence to 10 • Count to tell the number of objects • Understand addition as putting together and adding to and understand subtraction as taking apart and taking from • Identify and describe shapes	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively.
Unit 1: **Suggested Open Educational Resources**	K.CC.A.1 Counting Circles K.CC.A.1 Choral Counting K.CC.A.3 Number TIC TAC TOE K.CC.B.4 Counting Mat K.CC.B.5 Finding Equal Groups		

	K.OA.A.1 Ten Frame Addition K.MD.B.3 Sort and Count 1		MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics.
Unit 2 **Counting, Addition & Subtraction**	• K.CC.A.1* • K.CC.A.2 • K.CC.A.3* • K.OA.A.1* • K.OA.A.2 • K.CC.B.5* • K.CC.C.6 • K.CC.C.7 • K.OA.A.5*	• Know number names and the count sequence to 50 • Understand addition as putting together and adding to understand subtraction as taking apart and taking from • Count to tell the number of objects • Compare numbers	MP.5 Use appropriate tools strategically. MP.6 Attend to precision.
Unit 2: **Suggested Open Educational Resources**	K.CC.A.1 Choral Counting K.CC.A.2 Start-Stop Counting K.CC.A.3 Assessing Writing Numbers K.OA.A.2 Dice Addition 2 K.OA.A.2 What's Missing? K.CC.B.5 Finding Equal Groups K.CC.C.6 Which number is greater? Which number is less? How do you know? K.CC.C.7 Guess the Marbles in the Bag K.OA.A.5 Many Ways to Do Addition 1		MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.

Unit 3 **Place Value & Measurement**	• K.CC.A.1* • K.MD.A.1 • K.MD.A.2 • K.MD.B.3* • K.G.A.2 • K.G.A.3 • K.OA.A.3 • K.OA.A.4 • K.NBT.A.1* • K.OA.A.5*	• Know number names and the count sequence to 70 • Describe and compare measurable attributes • Classify and count the number of objects in categories • Identify and describe shapes • Understand addition as putting together and adding to understand subtraction as taking apart and taking from • Work with numbers 11-19 to gain foundations for place value	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.
Unit 3: **Suggested Open Educational Resources**	K.CC.A.1 Assessing Counting Sequences Part 1 K.MD.A.1 Which is heavier? K.MD.A.2 Which is Longer? K.MD.B.3 Sort and Count 2 K.OA.A.3 Shake and Spill K.OA.A.3 Pick Two K.NBT.A.1 What Makes a Teen Number K.OA.A.5 My Book of Five		

Unit 4 **Place Value & Geometric Shapes**	• K.CC.A.1* • K.OA.A.5* • K.G.B.4 • K.G.B.5 • K.G.B.6 • K.NBT.A.1*	• Know number names and the count sequence to 100 • Fluently add and subtract within 5 • Analyze, compare, create, and compose shapes • Work with numbers 11-19 to gain foundations for place value	MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.
Unit 4: **Suggested Open Educational Resources**	K.CC.A.1 Counting by Tens K.G.B.4 Alike or Different Game K.NBT.A.1 What Makes a Teen Number		

Unit 1 Kindergarten		
Content Standards	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
• K.CC.A.1. Count to 100 by ones and by tens. *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Number names and the count sequence up to 10 Students are able to: • count orally by ones up to 10.

		Learning Goal 1: Count by ones up to 10.
● K.CC.A.3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): ● Represent the number of objects with a numeral. Students are able to: ● write numbers from 0 to 10. Learning Goal 2: Represent the number of objects with a written numeral up to 10.
● K.CC.B.4. Understand the relationship between numbers and quantities; connect counting to cardinality. K.CC.B.4a.When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. K.CC.B.4b.Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. K.CC.B.4c.Understand that each successive number name refers to	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): ● Objects can be counted in any order. Each object is counted once (one-to-one correspondence). ● The next number name in counting is always one greater than the previous number. ● The last number name said tells the number of objects counted. Students are able to: ● say number names in the standard order. ● pair each object with one number name (one-to-one correspondence). ● count to tell the number of objects. ● count objects arranged in any order. ● identify the last number named as the number of objects counted. Learning Goal 3: Assign an ascending number name for each object in a group. Learning Goal 4: State the last number named as the number of counted objects in the set. Learning Goal 5: Identify the next number name in counting as one greater than the previous number.

a quantity that is one larger.		
• K.CC.B.5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. *(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): No new concept(s) introduced Students are able to: • count to tell the number of objects arranged in a line, rectangular array, circle, or scattered configuration. • count to tell the number of objects when asked *how many?* questions . • given a number from 1-10, count out that many object. Learning Goal 6: Answer *how many?* questions about groups of up to 10 objects when arranged in a line, rectangular array or circle. Learning Goal 7: Answer *how many?* questions about groups of up to 5 when arranged in a scattered configuration.
• K.OA.A.1. Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Understand addition as putting together and adding to. • Understand subtraction as taking apart and taking from. Students are able to: • create addition events with objects (up to 10). • create addition events with drawings and sounds (up to 10). • create addition events by acting out situations and with verbal explanations. Learning Goal 8: Create addition events with objects, fingers, drawings, sounds (e.g., claps), acting out situations and verbal explanations for sums up to 10.
• K.MD.B.3. Classify objects into given categories; count the numbers of	MP.2 Reason abstractly and quantitatively.	Concept(s): • Objects can be sorted based on their properties.

objects in each category and sort the categories by count *(benchmarked)	MP.7 Look for and make use of structure.	Students will be able to: ● sort objects into categories Learning Goal 9: Classify objects into given categories and count the objects in each category (up to 10 objects)
● K.G.A.1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, and next to.	MP.7 Look for and make use of structure.	Concept(s): ● Shapes have names. ● Positional words (above, below, besides, in front of, behind, next to) Students will be able to: ● name shapes in order to describe objects in the environment. ● use terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to* in order to describe relative positions of objects. Learning Goal 10: Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

Unit 1 Overview (Connecting Counting to Cardinality)	
Content Area	Mathematics
Unit Title	Connecting Counting to Cardinality
Grade Level	Grade K
Recommended Pacing	APX: 40-45 Days

Unit Summary	In this unit of study students will show, count and write numbers 0 to 5, compare numbers to 5, represent, Count and Write numbers 6-9.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices ● 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.

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.K.1	With prompting and support, ask and answer questions about key details in a text.
RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.
RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
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
K.CC.A.1.	Count to 100 by ones and by tens. *(benchmarked)
K.CC.A.3.	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *(benchmarked)
K.CC.B.4.	Understand the relationship between numbers and quantities; connect counting to cardinality.
K.CC.B.4a.	When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
K.CC.B.4c.	Understand that each successive number name refers to a quantity that is one larger.
K.CC.B.4b.	Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
K.CC.B.5.	Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. *(benchmarked)

K.OA.A.1.	Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. *(benchmarked)
K.MD.B.3.	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count *(benchmarked)
K.G.A.1.	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, and next to.

District/School Formative Assessment Plan	District/School Summative Assessment Plan
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. ● 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	*Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.* ● 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	
Primary Focus *This is connected to the types of writing as indicated in the standards:*	**Routine Writing** *This is daily writing or writing that is done several times over a week.*

• Informational/Explanatory • Research	• Text Dependent Writing (TDQ) • Quickwrites • Routine Writing

Unit Essential Questions
• How can you show and count 1 and 2 with objects? • How can you count and write 1 and 2 with words and numbers? • How can you show and count 3 and 4 with objects? • How can you count and write 3 and 4 with words and numbers? • How can you show and count up to 5 objects? • How can you count and write up to 5 with words and numbers? • How can you use two sets of objects to show 5 in more than one way? • How can you use matching and counting to compare sets with the same number of objects? • How can you compare sets when the number of objects in one set is greater than the number of objects in the other set? • How can you compare sets when the number of objects in one set is less than the number of objects in the other set? • How can you make a model to solve problems using a matching strategy? • How can you use a counting strategy to compare sets of objects? • How do you know the order of numbers is the same as a set of objects that is one larger? • How can you solve problems using strategy make a model? • How can you identify and write 0 with words and numbers? • How can you show and count 6 objects? • How can you count and write up to 6 with words and numbers? • How can you show and count 7 objects? • How can you count and write up to 7 with words and numbers? • How can you show and count 8 objects? • How can you count and write up to 8 with words and numbers? • How can you show and count 9 objects? • How can you count and write up to 9 with words and numbers? • How can you solve problems using the strategy draw a picture?
Unit Enduring Understandings
• Know number names and count sequence

- Count to tell the number objects.
- Understand addition as putting together and adding to, and understand. subtraction as taking apart and taking from.
- Represent, Count and Write numbers 6-9.
- Know number names and the count sequence
- Count to tell the number of objects
- Compare numbers

Key Vocabulary

- One
- Two
- Three
- Four
- Five
- Zero
- Match
- Pair
- And
- Larger
- Fewer
- More
- Compare
- Greater
- Less
- Same number
- Match
- More
- Fewer
- One
- Two
- Three
- Four
- five

Unit Learning Targets (Students will do…)

- Model and count 1 and 2 with objects
- Represent 1 and 2 objects with number names and written numerals
- Model and count 3 and 4 with objects
- Represent 3 and 4 objects with number names and written numerals
- Model and count up to 5 with objects
- Represent up to 5 objects with a number name and written numeral
- Use objects or drawings to decompose 5 into pairs in more ways than one
- Know that each successive number refers to a quantity that is one larger
- Solve problems by using the strategy make a model
- Represent 0 objects with a number name and written numeral
- Use matching and counting strategies to compare sets with the same number of objects.
- Use matching and counting strategies to compare sets when the number of objects in one set is greater than the number of objects in the other set.
- Use matching and counting strategies to compare sets when the number of objects in one set is less than the number of objects in the other set.
- Make a model to solve problems using a matching strategy.
- Use a counting strategy to compare a set of numbers.
- Model and count 6 with objects.
- Represent up to 6 objects with a number name and written numeral.
- Model and count 7 with objects.
- Represent up to 7 objects with a number name and written numeral.
- Model and count 8 with objects.
- Represent up to 8 objects with a number name and written numeral.

Instructional Best Practices and Exemplars

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

Unit 2 Kindergarten		
Content Standards	**Suggested Mathematical Practices**	**Critical Knowledge & Skills**

• K.CC.A.1. Count to 100 by ones and by tens.*(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Number names and the count sequence up to 50 Students are able to: • count orally by ones up to 50. • count orally by tens up to 50. Learning Goal 1: Count to 50 by ones and by tens.
• K.CC.A.2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).		Concept(s): No new concept(s) introduced Students will be able to: • count orally by ones up to 50, beginning at any number. Learning Goal 2: • Count forward up to 50 starting from numbers other than one.
• K.CC.A.3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).*(benchmarked)	MP. 2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): • The number of objects can be represented by a numeral. Students are able to: • write numbers from 0 to 20. Learning Goal 3: Represent a number of objects with a written numeral 0 to 20.
• K.OA.A.1. Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations,	MP.1 Make sense of problems and persevere in solving them. MP. 2 Reason abstractly and quantitatively.	Concept(s): • Understand addition as putting together and adding to. • Understand subtraction as taking apart and taking from.

expressions, or equations. *(benchmarked)	MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Students are able to: ● create subtraction and addition events with objects (up to 10). ● create subtraction and addition events with drawings and sounds (up to 10). ● create subtraction and addition events by acting out situations and with verbal explanations. Learning Goal 4: Create addition and subtraction events with objects, fingers, drawings, sounds (e.g., claps), acting out situations and verbal explanations (up to 10).
● K.OA.A.2. Solve addition and subtraction word problems, and add and subtract within 10, *e.g., by using objects or drawings to represent the problem.*	MP.1 Make sense of problems and persevere in solving them. MP. 2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): No new concept(s) introduced Students will be able to: ● use objects and drawings to represent addition and subtraction. ● add and subtract within 10. Learning Goal 5: Use objects or drawings to represent and solve addition and subtraction word problems (within 10).
● K.CC.B.5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. *(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): No new concept(s) introduced Students are able to: ● count to tell the number of objects arranged in a line, rectangular array, circle, or scattered configuration. ● count to tell the number of objects when asked “how many?” questions. ● given a number from 1-20, count out that many object. Learning Goal 6: Answer *how many?* questions about groups of up to 20 objects when arranged in a line, rectangular array or circle.

		Learning Goal 7: Answer *how many?* questions about groups of up to 10 when arranged in a scattered configuration .
• K.CC.C.6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group *e.g. by using matching and counting strategies.*	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): • Different groups can have different numbers of objects. • Numbers of objects can be compared using phrases such as *greater than*, *less than* and *equal to.* Students will be able to: • compare the number of objects (up to 10) in two groups. • identify whether the number of objects in one group is greater than, less than, or equal to to the number of objects in another group. Learning Goal 8: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (groups of up to 10 objects).
• K.CC.C.7. Compare two numbers between 1 and 10 presented as written numerals.	MP.2 Reason abstractly and quantitatively.	Concept(s): • Number names and the count sequence • The next number name in counting is always one greater than the previous number. • Count to tell the number of objects. Students will be able to: • compare numbers (up to 10) written as numerals. Learning Goal 9: Compare numbers (up to 10) written as numerals.
• K.OA.A.5. Demonstrate fluency for addition and subtraction within 5~~.~~ (by the end of Kindergarten). *(benchmarked)	MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students will be able to:

	MP.8 Look for and express regularity in repeated reasoning.	• add within 5 with accuracy and efficiency . Learning Goal 10: Use mental math strategies to solve addition facts within 5.

Unit 2 Overview (Counting, Addition & Subtraction)	
Content Area	Mathematics
Unit Title	Counting, Addition & Subtraction
Grade Level	Grade K
Recommended Pacing	APX: 45 Days
Unit Summary	In this unit of study students will represent, count, and write numbers to 10, add within 10 using different addition strategies and subtract within 10 using different strategies.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices • 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.

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.K.1	With prompting and support, ask and answer questions about key details in a text.
RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.
RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
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
K.CC.A.1.	Count to 100 by ones and by tens.*(benchmarked)
K.CC.A.2.	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
K.CC.A.3.	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20

	(with 0 representing a count of no objects).*(benchmarked)
K.OA.A.1.	Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. *(benchmarked)
K.OA.A.2.	Solve addition and subtraction word problems, and add and subtract within 10, *e.g., by using objects or drawings to represent the problem.*
K.CC.B.5.	Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. *(benchmarked)
K.CC.C.6.	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group *e.g. by using matching and counting strategies.*
K.CC.C.7.	Compare two numbers between 1 and 10 presented as written numerals.
K.OA.A.5.	Demonstrate fluency for addition and subtraction within 5~~.~~ (by the end of Kindergarten). *(benchmarked)

District/School Formative Assessment Plan	District/School Summative Assessment Plan
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. • Mathematical Vocabulary Activities • Assessment Item Analysis • UDL Menu • Do Now / Exit Ticket • Teacher / Student Questioning • Class / Small Group Discussion • Organizers • Peer / Self Assessment	*Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.* • 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

• Visual Presentations • Think Pair Share • Teacher Observation / Anecdotal Records • Computer Based Applications/Programs • Practice Presentations • Homework Activities	

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 can you show and count 10 objects?
- How can you count and write up to 10 with words and numbers?
- How can you use a drawing to make 10 from a given number?
- How can you count forward to 10 from a given number?
- How can you solve problems using the strategy make a model?
- How can you use counting strategies to compare sets of objects?
- How can you compare two numbers between 1 and 10?
- How can you show addition?
- How can you show addition as adding to?
- How can you use objects, and drawings to solve addition word problems?
- How can you solve addition problems using the strategy “acti it out”?
- How can you show subtraction as taking from?
- How can you show subtraction as taking apart?
- How can you solve problems using the strategy act it out?
- How can you use objects and drawings to solve subtraction word problems?
- How can you solve subtraction word problems and complete the equation?

- How can you solve subtraction word problems and complete the equation?
- How can you solve word problems using addition and subtraction?

Unit Enduring Understandings

- Know number names and the count sequence
- Count to tell the number of objects
- Compare numbers
- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Key Vocabulary

- Match
- Pair
- And
- Compare
- Greater
- Less
- Add
- Is equal to
- Plus
- Pair
- Six
- Seven
- Eight
- Nine
- ten
- Minus
- Subtract
- Is equal to
- plus

Unit Learning Targets (Students will do…)

- Model and count 10 with objects
- Represent up to 10 objects with a number name and a written numeral.
- Use a drawing to make 10 from a given number.
- Count forward to 10 from a given number.
- Solve problems by using the strategy make a model.
- Use counting strategies to compare sets of objects.
- Compare two numbers between 1 and 10.
- Use expressions to represent addition within 5.
- Use expressions to represent addition.
- Solve problems by using the strategy act it out.
- Use objects and drawings to solve addition word problems within 5.
- Use drawings to find 10 from a given number and record the equation.
- Solve addition word problems within 5 and record equations.
- Solve addition word problems within 10 and record the equation.
- Decompose numbers within 5 into pairs in more than one way and record each decomposition with an equation.
- Decompose 6 and 7 into pairs in more than one way and record each decomposition with an equation.
- Decompose 8 into pairs in more than one way and record each decomposition with an equation.
- Decompose 9 into pairs in more than one way and record each decomposition with an equation.
- Decompose 10 into pairs in more than one way and record each decomposition within an equation.
- Use expressions to represent subtraction within 5.
- Use expressions to represent subtraction.
- Solve problems by using the strategy act it out.
- Use objects and drawings to solve subtraction word problems within 5.
- Solve subtraction word problems within 5 and record the equation.
- Solve subtraction word problems within 10 and record the equation.
- Understand addition as putting together or adding to and subtraction as taking apart from to solve word problems.

Instructional Best Practices and Exemplars

Instructional Best Practices and Exemplars

Instructional Best Practices

(Please see information in attached link)

Unit 3 Kindergarten		
Content & Practice Standards		**Critical Knowledge & Skills**
● K.CC.A.1. Count to 100 by ones and by tens. *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ● Number names and the count sequence up to 70 Students are able to: ● count orally by ones up to 70. ● count orally by tens up to 70. Learning Goal 1: Count to 70 by ones and by tens.
● K.MD.A.1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	MP.7 Look for and make use of structure.	Concept(s): ● Measurable attributes: length, weight, size (volume) ● A single object can have more than one measurable attribute. Students are able to: ● identify measureable attributes. ● describe the measurable attributes of multiple objects. ● describe multiple measurable attributes of a single object. Learning Goal 2: Describe measurable attributes of multiple objects and describe several measurable attributes of a single object.
● K.MD.A.2. Directly compare two objects with a measurable attribute in common, to see which	MP.6 Attend to precision.	Concept(s):

object has “more of” “less of” the attribute, and describe the differences. *example, directly compare the heights of two children and describe one child as taller/shorter.*	MP.7 Look for and make use of structure.	● When comparing objects by measuring, each object must have the same starting point. ● Moving an object does not change its measure. Students are able to: ● directly compare and describe two objects with measurable attribute in common using *more of* or *less of*. Learning Goal 3*:* Directly compare two objects with a measurable attribute in common*;* use *more of* or *less of* to compare the objects.
● K.MD.B.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. *(benchmarked)	MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): ● Groups can be sorted by the number of objects in each group. Students are able to: ● sort objects into groups. ● sort the group by count. Learning Goal 4: Count the objects in given categories and sort the categories by count (up to 10 objects).
● K.G.A.2. Correctly name shapes regardless of their orientation or overall size.	MP.7 Look for and make use of structure.	Concept(s): ● Shapes have names. ● Shapes can have the same names but appear different. Students are able to: ● correctly names shapes regardless of their orientation or overall size. Learning Goal 5: Correctly names shapes regardless of their orientation or overall size.
● K.G.A.3. Identify shapes as two-dimensional (lying in a plane,	MP.7 Look for and make use of structure.	Concept(s): ● Shapes may be *flat* or *solid.*

"flat") or three-dimensional ("solid")		Students are able to: ● identify shapes as two-dimensional (lying in a plane, *flat*) or three-dimensional (*not flat, solid*). ● compare two- and three- dimensional shapes, in different sizes, and orientations. Learning Goal 6: Identify shapes as two-dimensional (lying in a plane, *flat*) or three-dimensional (*not flat, solid*).
● K.OA.A.3. Decompose numbers less than or equal to 10 into pairs in more than one way, *e.g. using objects or drawings*, and record each decomposition by a drawing or equation *(e.g. 5 = 3 + 2 and 5 = 4 + 1)*	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ● Part-to-whole relationships ● Some groups of objects can be broken into two smaller groups while the total number remains the same. ● Some groups of objects can be broken into two smaller groups in more than one way. Students will be able to: ● decompose numbers less than or equal to ten into two numbers. ● record the decomposition with a drawing. ● record the decomposition with an equation. ● decompose the same number in more than one way. Learning Goal 7: Decompose numbers less than or equal to ten into pairs of numbers in more than one way and record with a drawing or equation.
● K.OA.A.4. For any number from 1 to 9, find the number that makes 10 when added to the given number *e.g. by using objects or drawings*, and record the answer with a drawing or equation.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics.	Concept(s): No new concept(s) introduced Students are able to: ● find a missing part of 10 using objects. ● given a number from 1 to 9, use drawings, or equations to find the number that makes 10. Learning Goal 8*:* Given a number less than 10, find the number that makes 10.

	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	
• K.NBT.A.1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, *e.g. by using objects or drawings*, and record each composition or decomposition by a drawing or equation *(e.g. 18 = 10 + 8);* Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. *(benchmarked)	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Numbers from 11 to 19 can be represented as one group of ten *ones* and another group containing fewer than ten *ones.* Students are able to: • compose and decompose numbers from 11 to 19 into a group of ten *ones* and another group of one(s). • use the term *ones* to describe the number of objects in each group. • record each composition or decomposition using objects and drawings. • record each composition or decomposition by a drawing or equation. Learning Goal 9*:* Compose and decompose numbers from 11 to 19 into a group of ten and one(s) with or without manipulatives*;* record each composition or decomposition through a drawing or equation.
• K.OA.A.5. Demonstrate fluency for addition and subtraction within 5 (by the end of Kindergarten). *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: • add and subtract within 5 with accuracy and efficiency. Learning Goal 10: Use mental math strategies to solve addition and subtraction facts within 5.

Unit 3 Overview (Place Value & Measurement)	
Content Area	Mathematics

Unit Title	Place Value & Measurement
Grade Level	Grade K
Recommended Pacing	APX: 45 Days
Unit Summary	In this unit of study students will be able to students will be able to represent, count, and write 11 to 19, represent, count and write to 20 and beyond, and identify and describe two-dimensional shapes.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices ● 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.

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.K.1	With prompting and support, ask and answer questions about key details in a text.
RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.
RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).

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
K.CC.A.1.	Count to 100 by ones and by tens. *(benchmarked)
K.MD.A.1.	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
K.MD.A.2.	Directly compare two objects with a measurable attribute in common, to see which object has "more of" "less of" the attribute, and describe the differences. (*example, directly compare the heights of two children and describe one child as taller/shorter.)*
K.MD.B.3.	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. *(benchmarked)
K.G.A.2.	Correctly name shapes regardless of their orientation or overall size.
K.G.A.3.	Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid")

K.OA.A.3.	Decompose numbers less than or equal to 10 into pairs in more than one way, *e.g. using objects or drawings*, and record each decomposition by a drawing or equation *(e.g. 5 = 3 + 2 and 5 = 4 + 1)*
K.OA.A.4.	For any number from 1 to 9, find the number that makes 10 when added to the given number *e.g. by using objects or drawings*, and record the answer with a drawing or equation.
K.NBT.A.1.	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, *e.g. by using objects or drawings*, and record each composition or decomposition by a drawing or equation *(e.g. 18 = 10 + 8);* Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. *(benchmarked)
K.OA.A.5.	Demonstrate fluency for addition and subtraction within 5 (by the end of Kindergarten). *(benchmarked)

District/School Formative Assessment Plan	District/School Summative Assessment Plan
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. ● 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	*Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.* ● 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	
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 can you show, count and write numbers 11-19? ● How can you show 20 objects? ● How can you count and write up to 20 using words and numbers? ● How can you count forward to 20 from a given number? ● How can you solve problems using the strategy make a model? ● How does the order of numbers help you to count to 50 by ones? ● How does the order of numbers help you to count to 100 by ones? ● How can you count to 100 by tens on a hundreds chart? ● How can you use sets of ten to count to 100? ● How can you identify, name, and describe two-dimensional shapes?
Unit Enduring Understandings
● Students will be able to: represent, count, and write 11 to 19 ● Know number names and count sequence. ● Work with numbers 11-19 to gain foundations for place value. ● Know number names and the count sequence ● Count to tell the number of objects ● Compare numbers ● Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres). ● Analyze, compare, create, and compose shapes.
Key Vocabulary

- Eleven
- Twelve
- Thirteen
- Fourteen
- Fifteen
- Sixteen
- Seventeen
- Eighteen
- Nineteen
- Ones
- Tens
- Twenty
- Fifty
- One hundred
- One, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen
- Compare
- Alike
- Circle
- Curve
- Different
- Hexagon
- Rectangle
- Sides
- Square
- Triangle
- Vertex
- Corner
- Vertices

Unit Learning Targets (Students will do…)

- Use objects to decompose the numbers 11 and 12 into ten ones and some further ones.
- Represent 11 and 12 objects with number names and written numerals.
- Use objects to decompose the numbers 13 and 14 into ten ones and some further ones.
- Represent 13 and 14 objects with number names and written numerals.
- Use objects to decompose 15 into ten ones and some further ones and represent 15 with a number name and written numerals.

- Solve problems by using the strategy draw a picture.
- Use objects to decompose the numbers 16 and 17 into tens ones and some further ones.
- Represent 16 and 17 objects with number names and written numerals.
- Use objects to decompose the numbers 18 and 19 into ten ones and some further ones.
- Represent 18 and 19 objects with number names and written numerals.
- Model and count 20 with objects.
- Represent up to 20 objects with a number name and a written numeral.
- Count forward to 20 from a given number.
- Solve problems by using the strategy make a model.
- Know the count sequence when counting to 50 by ones.
- Know the count sequence when counting to 100 by ones.
- Know the count sequence when counting to 100 by tens.
- Use sets of tens to count to 100.
- Identify and name two-dimensional shapes including circles.
- Describe attributes of circles.
- Identify and name two-dimensional shapes including squares.
- Describe attributes of squares.
- Identify and name two dimensional shapes including triangles.
- Identify and name two-dimensional shapes including rectangles.
- Describe attributes of rectangles.
- Identify and name two-dimensional shapes including hexagon.
- Describe attributes of a hexagon.
- Use the words alike and different to compare two-dimensional shapes by attributes.
- Solve problems by using the strategy draw a picture.

Instructional Best Practices and Exemplars

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

Unit 4 Grade K

Content & Practice Standards		Critical Knowledge & Skills
• K.CC.A.1. Count to 100 by ones and by tens. *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): • Number names and the count sequence up to 100 Students are able to: • count orally by ones up to 100. • count orally by tens up to 100. Learning Goal 1: Count to 100 by ones and by tens.
• K.OA.A.5. Demonstrate fluency for addition and subtraction within 5 (by the end of Kindergarten). *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students are able to: • add and subtract within 5 with accuracy and efficiency. Learning Goal 2: Fluently add and subtract within 5.
• K.G.B.4. Analyze and compare two- and three- dimensional shapes, in different sizes, and orientations, using informal language to describe their similarities, differences, parts *(e.g. number of sides and vertices "corners")* and other attributes *(e.g. having sides of equal length)*.	MP.7 Look for and make use of structure.	Concept(s): • Orientation does not alter attributes or size. • Shapes may have sides of unequal or equal length. • Shapes may or may not have the same number of sides or 'corners'. Students are able to: • compare two- and three- dimensional shapes in different sizes and in different orientations and identify similarities and differences. • compare parts of two- and three-dimensional shapes [e.g. number of sides, number of vertices (*corners*)]. • compare attributes of two- and three-dimensional shapes [e.g. sides have equal length.] • use informal language to describe similarities, differences, parts, and other attributes when comparing two-and three-dimensional shapes, in different sizes and orientations.

		Learning Goal 3: Use informal language to describe similarities, differences, parts number of sides, number of *corners*), and other attributes (having sides of equal length) when comparing two- and three- dimensional shapes, in different sizes and orientations.
● K.G.B.5. Model shapes in the world by building shapes from components *(e.g., sticks and clay balls)* and drawing shapes.	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.7 Look for and make use of structure.	Concept(s): ● Basic shapes exist in real world objects. Students are able to: ● recognize basic shapes in the real world. ● use objects (clay, sticks, etc) to model shapes. ● model shapes in the world by drawing shapes. Learning Goal 4: Model shapes in the world by building and drawing shapes.
● K.G.B.6. Compose simple shapes to form larger shapes. *For example: "Can you join these two triangles with full sides touching to make a rectangle?"*	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.7 Look for and make use of structure.	Concept(s): ● Shapes can be combined to make larger shapes. Students are able to: ● compose simple shapes to form larger shapes. Learning Goal 5*:* Compose simple shapes to form larger shapes.
● K.NBT.A.1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, *e.g. by using objects or drawings*, and record each composition or decomposition by a drawing or equation *(e.g. 18 = 10 + 8)*; understand that these numbers are	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics.	Concept(s): ● Numbers from 11 to 19 can be represented as one group of ten *ones* and another group containing fewer than ten *ones.* Students are able to: ● compose and decompose numbers from 11 to 19 into a group of ten *ones* and another group of one(s).

composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. *(benchmarked)	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	• use the term *ones* to describe the number of objects in each group. • record each composition or decomposition using objects and drawings. • record each composition or decomposition by a drawing or equation. Learning Goal 6*:* Compose and decompose numbers from 11 to 19 into a group of ten and one(s) with or without manipulatives. Record each composition or decomposition through a drawing or equation.

Unit 4 Overview (Place Value & Geometric Shapes)	
Content Area	Mathematics
Unit Title	Place Value & Geometric Shapes
Grade Level	Grade K
Recommended Pacing	APX: 45 Days
Unit Summary	In this unit of study students will be able to identify and describe three dimensional shapes, measure and compare objects and classify and sort data.
Interdisciplinary Connections	Primary Interdisciplinary Connections: Science, ELA
21st Century Themes/Career Ready Practices • 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.

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.K.1	With prompting and support, ask and answer questions about key details in a text.
RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.
RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
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
K.CC.A.1.	Count to 100 by ones and by tens. *(benchmarked)

K.OA.A.5.	Demonstrate fluency for addition and subtraction within 5 (by the end of Kindergarten). *(benchmarked)
K.G.B.4.	Analyze and compare two- and three- dimensional shapes, in different sizes, and orientations, using informal language to describe their similarities, differences, parts *(e.g. number of sides and vertices "corners")* and other attributes *(e.g. having sides of equal length)*.
K.G.B.5.	Model shapes in the world by building shapes from components *(e.g., sticks and clay balls)* and drawing shapes.
K.G.B.6.	Compose simple shapes to form larger shapes. *For example: "Can you join these two triangles with full sides touching to make a rectangle?"*
K.NBT.A.1.	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, *e.g. by using objects or drawings*, and record each composition or decomposition by a drawing or equation *(e.g. 18 = 10 + 8)*; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. *(benchmarked)

District/School Formative Assessment Plan	District/School Summative Assessment Plan
Formative assessment informs instruction and is ongoing throughout a unit to determine how students are progressing against the standards. • 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	*Summative assessment is an opportunity for students to demonstrate mastery of the skills taught during a particular unit.* • 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

• Practice Presentations • Homework Activities	

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 can you show which shapes stack, roll, or slide? • How can you identify, name and describe spheres? • How can you identify, name and describe cubes? • How can you identify, name and describe cylinders? • How can you identify, name and describe cones? • How can you solve problems using the strategy use logical reasoning? • How can you model shapes in the real world? • How can you use the terms above and below to describe shapes in the environment? • How can you use the terms beside and next to to describe shapes in the environment? • How can you use the terms in front of and behind to describe shapes in the environment? • How can comparing objects help you measure them? • How can you compare the length, height and weight of two objects. • How does sorting help you display information? • How can you classify and count objects by color? • How can you classify objects by shape? • How can you classify and count objects by size? • How can you make a graph to count objects that have been classified into categories? • How can you read a graph to count objects that have been classified into categories?
Unit Enduring Understandings

- Identify and describe shapes (squares, circles, triangles, hexagons, cubes, cones, cylinders, and spheres)
- Analyze, compare, create, and compose shapes
- Describe and compare measurable attributes.
- Classify objects and count the number of objects in each category.

Key Vocabulary

- Above, behind, below, beside, next to, in front of,
- Cone
- Cube
- Curved surface
- Cylinder
- Flat surface
- Roll
- Slide
- Sphere
- Stack
- Three-dimensional shapes
- Heavier
- Lighter
- Longer
- Shorter
- Taller
- Same height
- Same length
- Same weight
- Red, blue, green, yellow
- Classify
- Category
- Shape
- Size
- Small
- Big
- graph

Unit Learning Targets (Students will do…)

- Analyze and compare three-dimensional shapes by attributes.
- Identify name and describe three dimensional shapes including spheres?
- Identify name and describe three dimensional shapes including cubes?
- Identify name and describe three dimensional shapes including cylinders?
- Identify name and describe three dimensional shapes including cones?
- Solve problems by using the strategy use logical reasoning.
- Model two- and three- dimensional shapes by building and drawing.
- Use terms above and below to describe shapes in the environment.
- Use terms beside and next to to describe shapes in the environment.
- Use terms in front of and behind to describe shapes in the environment.
- Directly compare the lengths of two objects.
- Directly compare the heights of two objects.
- Solve problems by using the strategy draw a picture.
- Directly compare the weights of two objects.
- Describe several measurable attributes of a single object.
- Classify and count objects by color.
- Classify and count objects by shapes.
- Classify and count objects by size.
- Make a graph to count objects that have been classified into categories.
- Read a graph to count objects that have been classified into categories.

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