

Pacing Guide 2019-20
4th Grade

Pacing Guide	
Content Area: Mathematics	
Grade Level: Fourth	
Unit 1: Place Value	September-October <i>Aug.-Sept</i>
Unit 2: Addition and Subtraction	November <i>October</i>
Unit 3: Multiplication and Division	December-January <i>October-November</i>
Unit 4: Fractions	February <i>Dec. - Jan.</i>
Unit 5: Decimals	March-April <i>Jan.</i>
Unit 6: Decimals	April <i>Jan.</i>
Unit 7: Measurement	May <i>Feb.</i>
Unit 8: Geometry	June <i>March</i>
Unit 9: Data	June <i>April</i>

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Place Value		
Interdisciplinary Connections: English Language Arts:		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21st Century Themes:		
<ul style="list-style-type: none"> Global Awareness 		
21st Century Skills:		
<ul style="list-style-type: none"> Learning and Innovation Skills <ul style="list-style-type: none"> Creativity and Innovation <ul style="list-style-type: none"> Think critically Work Creatively with Others Implement Innovations Critical Thinking and Problem Solving <ul style="list-style-type: none"> Reason Effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communication and Collaboration <ul style="list-style-type: none"> Communicate Clearly Collaborate with Others Apply Technology Effectively Information, Media and Technology Skills <ul style="list-style-type: none"> Access and Evaluate Information Life and Career Skills <ul style="list-style-type: none"> ICT Literacy Use and Manage Information Flexibility and Adaptability <ul style="list-style-type: none"> Adapt to Change Be Flexible Initiative and Self-Direction <ul style="list-style-type: none"> Manage Goals and Time Work Independently Be Self-directed Learners Social and Cross Cultural Skills <ul style="list-style-type: none"> Interact with others Work Effectively in Diverse Teams Productivity and Accountability <ul style="list-style-type: none"> Manage Projects Produce Results Leadership and Responsibility <ul style="list-style-type: none"> Guide and Lead Others Be Responsible to Others 		
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Unit 1. Title: Place Value		Time Frame:
Standards:		
4.NBT.1		
4.NF.6		
4.NF.7		
4.NBT.2		
4.NBT.3		
4.NBT.5		
Enduring Understanding:	<ul style="list-style-type: none"> • Our number system is based on groups of tens. • In a multi-digit number, a digit in one place represents ten times what it would represent in the place immediately to the right. • Place value can be used to compare and order numbers. 	Essential Questions: <ul style="list-style-type: none"> • How does place value help represent the value of numbers?
Knowledge and Skills: Students will...	<ul style="list-style-type: none"> • Understand foundations of and generalize about place value • Extend counting sequence and read and write whole numbers • Compare/order numbers • Round numbers • Compose and decompose numbers 	Demonstration of Learning : <ul style="list-style-type: none"> • Pearson Topic 1 Performance Assessment
Suggested Tasks and Activities	Technology Integration/ Resources <ul style="list-style-type: none"> • Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) • Watch video McGraw-Hill : My Math Grade 4 Chapter 1- Place Value (connected.mcgraw-hill.com) • Review vocabulary words to show what they know – ten thousands, thousands, hundreds, tens, ones • Am I Ready McGraw-Hill: My Math Grade 4 Chapter 1 • Problem of the Day; Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 1) • Introduce vocabulary words from McGraw-Hill : My Math Grade 4 Chapter 1- Place Value: digit, expanded form, is equal to (=), is greater than (>), is less than (<), number line, period, place value 	

<ul style="list-style-type: none"> • Create foldable for place value chart to make numbers up to the millions place. • Use digit cards to create interactive experience building and rounding numbers. • Make two sets of digits cards 0 – 9 including 2 commas. Create two teams and have them compete to correctly form the given number by arranging themselves accordingly. • Using a place value chart, students will try to make the largest number possible. The teacher will roll a 10 –sided die and students will place each digit into the chart when rolled. Once written down, the student cannot change placement. The student(s) with the largest number possible wins that round. • Students will complete a table with column headings of standard, word, and expanded form. An example of each will be given in each row. Students will fill in table accordingly. 	<ul style="list-style-type: none"> • www.superteacherworksheets.com • www.enchantedlearning.com • www.teacherspayteachers.com • www.xtramath.org • www.sumdog.com • www.smartexchange.com • www.teacherled.com
---	--

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Addition and Subtraction		
Interdisciplinary Connections: English Language Arts:		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21st Century Themes:		
<ul style="list-style-type: none"> • Global Awareness 		
21st Century Skills:		
<ul style="list-style-type: none"> • Learning and Innovation Skills <ul style="list-style-type: none"> ○ Creativity and Innovation <ul style="list-style-type: none"> ▪ Think critically ▪ Work Creatively with Others ○ Critical Thinking and Problem Solving <ul style="list-style-type: none"> ▪ Reason Effectively ▪ Use Systems Thinking ▪ Make Judgments and Decisions ▪ Solve Problems ○ Communication and Collaboration <ul style="list-style-type: none"> ▪ Communicate Clearly ▪ Collaborate with Others ▪ Apply Technology Effectively ○ Information, Media and Technology Skills <ul style="list-style-type: none"> ▪ Access and Evaluate Information 		
<ul style="list-style-type: none"> • Life and Career Skills <ul style="list-style-type: none"> ○ ICT Literacy <ul style="list-style-type: none"> ▪ Use and Manage Information ○ Flexibility and Adaptability <ul style="list-style-type: none"> ▪ Adapt to Change ▪ Be Flexible ○ Initiative and Self-Direction <ul style="list-style-type: none"> ▪ Manage Goals and Time ▪ Work Independently ▪ Be Self-directed Learners ○ Social and Cross Cultural Skills <ul style="list-style-type: none"> ▪ Interact with others ▪ Work Effectively in Diverse Teams ○ Productivity and Accountability <ul style="list-style-type: none"> ▪ Manage Projects ▪ Produce Results ○ Leadership and Responsibility <ul style="list-style-type: none"> ▪ Guide and Lead Others ▪ Be Responsible to Others 		
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Unit 2. Title: Addition and Subtraction		Time Frame:
Standards:		
4.NBT.4		
4.NBT.2		
4.NBT.4		
4.NBT.3		
Enduring Understanding:		Essential Questions:
<ol style="list-style-type: none"> 1. Computation involves taking apart and combining numbers using a variety of approaches. 2. Flexible methods of computation involve grouping numbers in strategic ways. 3. Proficiency with basic facts aids estimation and computation of larger whole numbers. 		4. What strategies can I use to add or subtract?
Knowledge and Skills:		Demonstration of Learning
Students will...		Students create a drive to recycle cans and bottles, and they keep records of their success.
<ul style="list-style-type: none"> • Fluently add and subtract multi-digit numbers • Compose and decompose numbers • Use mental arithmetic • Use estimation • Use algorithms to add and subtract • Use and explain strategies based on the relationship between addition and subtraction • Use and explain strategies based on place value and properties of operations 		<ul style="list-style-type: none"> • Students make posters to publicize a drive to collect cans and bottles for recycling. Students keep records, adding up how many bottles and cans they collect each week. Students estimate how many they will collect in one month and then compare their actual collections with their estimates. • Students add up how much money they will get for returning the cans and bottles for deposit. They can use the money they collect to have a class party or give a donation to a charity they select.
Suggested Tasks and Activities		Technology Integration Resources :
<ul style="list-style-type: none"> • Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) • Watch video McGraw-Hill : My Math Grade 4 Chapter 2- Addition & Subtraction (connected.mcgraw-hill.com) • Review vocabulary words to show what they know – difference, round, word form, estimate, sum • Am I Ready McGraw-Hill: My Math Grade 4 Chapter 2 		<ul style="list-style-type: none"> • SmartBoard • Calculator • www.k-5mathteachingresources.com • www.softschools.com • www.mrnussbaum.com • www.mathplayground.com

<ul style="list-style-type: none"> • Problem of the Day; Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 2) • Introduce vocabulary words from McGraw-Hill : My Math Grade 4 Chapter 2 – Addition & Subtraction: Associative Property of Addition, Commutative Property of Addition, equation, Identify Property of Addition, minuend, subtrahend, unknown, variable • Create foldable to fluently add and subtract multi-digit whole numbers. • Use number cubes to form 2, 4, and 5 digit numbers to add or subtract. • Use playing cards to form multi-digit numbers to add or subtract. • Use play money and flyers or menus to add and subtract numbers • Use base-ten blocks to model then add and subtract numbers 	
---	--

Content Area: Mathematics	
Unit Title: Multiplication and Division	Grade Level : Fourth
Interdisciplinary Connections: English Language Arts: CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly. CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles. CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points. CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.	
21st Century Themes: • Global Awareness 21st Century Skills: <ul style="list-style-type: none"> • Learning and Innovation Skills <ul style="list-style-type: none"> ○ Creativity and Innovation <ul style="list-style-type: none"> ▪ Think critically ▪ Work Creatively with Others ▪ Implement Innovations ○ Critical Thinking and Problem Solving <ul style="list-style-type: none"> ▪ Reason Effectively ▪ Use Systems Thinking ▪ Make Judgments and Decisions ▪ Solve Problems ○ Communication and Collaboration <ul style="list-style-type: none"> ▪ Communicate Clearly ▪ Collaborate with Others ▪ Apply Technology Effectively ○ Information, Media and Technology Skills <ul style="list-style-type: none"> ▪ Information Literacy ▪ Access and Evaluate Information • Life and Career Skills <ul style="list-style-type: none"> ○ ICT Literacy ○ Flexibility and Adaptability <ul style="list-style-type: none"> ▪ Adapt to Change ▪ Be Flexible ○ Initiative and Self-Direction <ul style="list-style-type: none"> ▪ Manage Goals and Time ▪ Work Independently ▪ Be Self-directed Learners ○ Social and Cross Cultural Skills <ul style="list-style-type: none"> ▪ Interact with others ▪ Work Effectively in Diverse Teams ○ Productivity and Accountability <ul style="list-style-type: none"> ▪ Manage Projects ▪ Produce Results ○ Leadership and Responsibility <ul style="list-style-type: none"> ▪ Guide and Lead Others ▪ Be Responsible to Others 	
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use	

Unit 3. Title: Multiplication and Division		Time Frame:
Standards:		
4.NBT.5 4.NBT.6 4.OA.4 4.OA.1 4.OA.2 4.OA.3 4.NBT.3		
Enduring Understanding:		Essential Questions:
<ul style="list-style-type: none"> • Products can be determined in a variety of ways including use of place value, arrays, models, Distributive Property, and by an algorithm. • Computation involves taking apart and combining numbers using a variety of approaches. • Proficiency with basic facts aids computation and estimation of numbers. • Quotients can be modeled, found, and estimated in multiple ways. 		<ul style="list-style-type: none"> • How are multiplication and division related? • How can I communicate multiplication? • How can I multiply by a two-digit number? • How does division affect numbers? • What is the relationship between multiplication and division?
Knowledge and Skills:		Demonstration of Learning
Students will...		
<ul style="list-style-type: none"> • Compose and decompose numbers • Use and explain strategies based on the relationship between multiplication and division • Use and explain strategies based on place value and properties of operations • Interpret multiplication equations as comparisons • Interpret remainders • Estimation • Divide and fluently multiply multi-digit numbers using standard algorithm • Apply distributive property • 		<ul style="list-style-type: none"> • The fourth grade students are setting up rows of chairs for a poetry reading. They will arrange 24 chairs into 3 rows. How many chairs will be in each row? Draw and write mathematical expressions for all the other arrays in which the chairs can be arranged.

Suggested Tasks and Activities	Technology Integration/ Resources:
<ul style="list-style-type: none"> • Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) • Watch video McGraw-Hill : My Math Grade 4 Chapter 3, 4, 5 and 6 - Multiplication & Division (connected.mcgraw-hill.com) • Review vocabulary words to show what they know – <i>divide, multiply, equation, factor, product, decompose, product, dividend, divisor, quotient</i> • Am I Ready McGraw-Hill: My Math Grade 4 Chapter 3, 4, 5, and 6 • Problem of the Day; Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 3, 4, 5 and 6) • Introduce vocabulary words from McGraw-Hill: My Math Grade 4 Chapter 3, 4, 5, and 6 – Multiplication & Division: <i>Associative Property of Multiplication, Commutative Property of Multiplication, decompose, dividend, divisor, fact family, factor, Identity Property of Multiplication, Distributive Property, partial products, regroup, operation, compatible numbers, partial quotients, remainder</i> • Create foldable to provide practice with factors and multiples of whole numbers; create a foldable to provide four representations for multiplying whole numbers; create a foldable to provide practice with estimating products; create a foldable to practice with dividing by a one-digit number and the steps students should follow as they work through the examples. • Use base ten blocks to model multiplication and division • Use counters to model different arrays • Draw rectangles with different dimensions to model different arrays 	<ul style="list-style-type: none"> • Smartboard • Calculators • www.k-5mathresources.com • www.softschools.com • www.mrnussbaum.com • www.illuminations.nctm.org • www.mathplayground.com • www.xtramath.org

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Fractions		
Interdisciplinary Connections: <u>English Language Arts:</u>		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21 st Century Themes:		
• Global Awareness		
21 st Century Skills:		
• <u>Learning and Innovation Skills</u>		
○ Creativity and Innovation		
▪ Think critically		
▪ Work Creatively with Others		
▪ Implement Innovations		
○ Critical Thinking and Problem Solving		
▪ Reason Effectively		
▪ Use Systems Thinking		
▪ Make Judgments and Decisions		
▪ Solve Problems		
○ Communication and Collaboration		
▪ Communicate Clearly		
▪ Collaborate with Others		
▪ Apply Technology Effectively		
• <u>Information, Media and Technology Skills</u>		
○ Information Literacy		
▪ Access and Evaluate Information		
• <u>Life and Career Skills</u>		
○ ICT Literacy		
▪ Use and Manage Information		
○ Flexibility and Adaptability		
▪ Adapt to Change		
▪ Be Flexible		
○ Initiative and Self-Direction		
▪ Manage Goals and Time		
▪ Work Independently		
▪ Be Self-directed Learners		
○ Social and Cross Cultural Skills		
▪ Interact with others		
▪ Work Effectively in Diverse Teams		
○ Productivity and Accountability		
▪ Manage Projects		
▪ Produce Results		
○ Leadership and Responsibility		
▪ Guide and Lead Others		
▪ Be Responsible to Others		
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Unit 4. Title: Fractions		Time Frame:
Standard and Cumulative Progress Indicators: 4.NF.6 4.NF.1 4.NF.5 4.NF.3b 4.NJ.4a 4.NF.4b 4.NF.2 4.OA.4 4.NF.3c 4.NF.3d 4.NF.4 4.NF.4c		
Enduring Understanding: <ul style="list-style-type: none"> Fractions can be modeled, compared, and ordered. The same fractional unit can be represented by an infinite set of different but equivalent fractions. When adding or subtracting with like denominators, you are adding or subtracting portions of the same size. When we multiply one number by another, we may get a product bigger than the original number, smaller than the original number, or equal to the original number. 	Essential Questions: <ul style="list-style-type: none"> How can different fractions name the same amount? How can I use operations to model real-world problems? 	
Knowledge and Skills: Students will... <ul style="list-style-type: none"> Greatest Common Factor Least Common Multiple Represent fractions on a number line Equivalent fractions Unit fractions Compare and order fractions Find factor pairs and multiples Prime and composite numbers Simplest form 	Demonstration of Learning <ul style="list-style-type: none"> Task – Cynthia's Perfect Punch Cynthia is making her famous "Perfect Punch" for a party. After looking through the recipe, Cynthia knows that she needs to mix $4\frac{5}{8}$ gallons of fruit juice concentrate with $3\frac{7}{8}$ gallons of sparkling water. Just as she is about to get started she realizes that she only has one 10-gallon container to use for mixing. Will this container be big enough to hold all the ingredients? How much punch will this recipe make? 	

<ul style="list-style-type: none"> • Represent mixed numbers and write as improper fractions • Add, subtract, and multiply fractions and mixed numbers • Solve word problems involving addition and subtraction of fractions <p>Solve word problems involving multiplication of fractions</p>	<ul style="list-style-type: none"> • Amy, Beth, Katie, Gretchen, and Deb love chocolate. One afternoon, they each had a large chocolate bar. Each chocolate bar was the same size. They argued about who ate the most chocolate. Here is what each girl ate: • Amy: $\frac{2}{6}$ of her chocolate bar • Beth: $\frac{2}{3}$ of her chocolate bar • Katie: $\frac{3}{4}$ of her chocolate bar • Gretchen: $\frac{1}{2}$ of her chocolate bar • Deb: $\frac{1}{4}$ of her chocolate bar <ol style="list-style-type: none"> 1. Who ate the most chocolate? 2. Who ate the least amount of chocolate? 3. How could we order what the girls ate from the least to the greatest amount? <ul style="list-style-type: none"> • Pearson Topic 10 Performance Assessment – Write fractions for parts of a region in simplest form and estimate fractional amounts.
<p>Suggested Tasks and Activities:</p> <ul style="list-style-type: none"> • Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) • Watch video McGraw-Hill : My Math Grade 4 Chapter 8 and 9 – Fractions and Operations with Fractions (connected.mcgraw-hill.com) • Review vocabulary words to show what they know – <i>fourths, halves, thirds, is equal to (=), is greater than (>), is less than (<), denominator, mixed number, numerator, simplest form</i> • Am I Ready McGraw-Hill: My Math Grade 4 Chapter 8 & 9 • Problem of the Day; Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 8 and 9) • Introduce vocabulary words from McGraw-Hill: My Math Grade 4 Chapter 8 and 9 – Fractions and Operations with Fractions: <i>benchmark fractions, composite number, denominator, equivalent fractions, factor pairs, greatest common factor, improper fraction, least common multiple, mixed number, numerator, prime number, simplest form, like fractions</i> 	<p>Technology Integration/ Resources:</p> <p>www.k-5mathteachingresources.com</p> <p>www.softschools.com</p> <p>www.mrnussbaum.com</p> <p>www.illuminations.nctm.org</p> <p>www.mathplayground.com</p> <p>www.visualfractions.com</p>

<ul style="list-style-type: none"> • Create foldable to practice representing fractions in different ways; create foldable to provide practice with adding, subtracting, and multiplying fractions. • Fraction strips to show equivalent fractions or compare fractions • Use a ruler to show equivalent fractions • Draw models to represent equivalents or show comparisons • Using tenths and hundredths charts to represent equivalents or show comparisons • Index cards with fractions for students to play “memory” to find equivalent matches • Fraction strips to create mixed numbers or decompose mixed numbers • Hundreds Chart to highlight multiples • Hundreds Chart to find prime numbers from 2 – 100 • Work with fraction bars and other fraction manipulatives • Model factor pairs using rectangular arrays on graph paper or counters • Create T-charts to list all factors to determine GCF • Use a multiplication chart to model equivalent fractions 	
---	--

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Decimals		
Interdisciplinary Connections: <u>English Language Arts</u> :		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate ;use formal English when appropriate to task and situation.		
21 st Century Themes:		
<ul style="list-style-type: none"> Global Awareness 		
21 st Century Skills:		
<ul style="list-style-type: none"> <u>Learning and Innovation Skills</u> <ul style="list-style-type: none"> <ul style="list-style-type: none"> Creativity and Innovation <ul style="list-style-type: none"> Think critically Work Creatively with Others Implement Innovations Critical Thinking and Problem Solving <ul style="list-style-type: none"> Reason Effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communication and Collaboration <ul style="list-style-type: none"> Communicate Clearly Collaborate with Others Apply Technology Effectively <ul style="list-style-type: none"> Information, Media and Technology Skills <ul style="list-style-type: none"> Information Literacy <ul style="list-style-type: none"> Access and Evaluate Information 		
<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> ICT Literacy <ul style="list-style-type: none"> Use and Manage Information <ul style="list-style-type: none"> Life and Career Skills <ul style="list-style-type: none"> Flexibility and Adaptability <ul style="list-style-type: none"> Adapt to Change Be Flexible Initiative and Self-Direction <ul style="list-style-type: none"> Manage Goals and Time Work Independently Be Self-directed Learners Social and Cross Cultural Skills <ul style="list-style-type: none"> Interact with others Work Effectively in Diverse Teams Productivity and Accountability <ul style="list-style-type: none"> Manage Projects Produce Results Leadership and Responsibility <ul style="list-style-type: none"> Guide and Lead Others Be Responsible to Others 		
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Math Curriculum K-8

Unit 5. Title: Decimals	Time Frame:
Standards: 4.NF.6 4.NF.5 4.NF.7	
Enduring Understanding: <ul style="list-style-type: none"> Place value is based on groups of ten. Fractions and decimals express a relationship between two numbers. Fractions and decimals can be used to name the same number. 	Essential Questions: <ul style="list-style-type: none"> How are fractions and decimals related?
Knowledge and Skills: Students will... <ul style="list-style-type: none"> Understand decimal notation Write fractions as decimals Compare and order decimals Add decimals Represent decimals on a number line 	Demonstration of Learning: <ul style="list-style-type: none"> Students plan a bake sale and price their goods in decimal form. Students create a poster that shows a picture of each item being sold with the price of the item below it. Have students arrange the pictures of the items so that they are in order from least to greatest price. Pearson Topic 12 Performance Assessment – Design a clay coaster and determine how much clay they need for it.
Suggested Tasks and Activities: <ul style="list-style-type: none"> Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) Watch video McGraw-Hill : My Math Grade 4 Chapter 10 – Fractions and Decimals (connected.mcgraw-hill.com) Review vocabulary words to show what they know – <i>equivalent, fraction, place value</i> Am I Ready McGraw-Hill: My Math Grade 4 Chapter 10 – Fractions and Decimals Problem of the Day: Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 10) Introduce vocabulary words from McGraw-Hill : My Math Grade 4 Chapter 10 – Fractions & Decimals: decimal, hundredth, tenth Create foldable to practice modeling tenths Use tenths and hundredths place-value charts to find equivalents or show comparisons Use dimes and pennies to model tenths and hundredths Draw models to represent tenths and hundredths Index cards with decimal notation and tenths and hundredths grid models for students to play “memory” to find equivalent matches Relate decimals to money (dimes, pennies) 	Technology Integration/ Resources: <ul style="list-style-type: none"> SmartBoard Calculator www.k-5mathteachingresources.com www.softschools.com www.mathisfun.com www.decimalsquares.com

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Algebraic Representation		
Interdisciplinary Connections: English Language Arts:		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21st Century Themes:		
• Global Awareness		
21st Century Skills:		
• Learning and Innovation Skills		• Life and Career Skills
○ Creativity and Innovation		○ ICT Literacy
▪ Think critically		▪ Use and Manage Information
▪ Work Creatively with Others		○ Flexibility and Adaptability
▪ Implement Innovations		▪ Adapt to Change
○ Critical Thinking and Problem Solving		▪ Be Flexible
▪ Reason Effectively		○ Initiative and Self-Direction
▪ Use Systems Thinking		▪ Manage Goals and Time
▪ Make Judgments and Decisions		▪ Work Independently
▪ Solve Problems		▪ Be Self-directed Learners
○ Communication and Collaboration		○ Social and Cross Cultural Skills
▪ Communicate Clearly		▪ Interact with others
▪ Collaborate with Others		▪ Work Effectively in Diverse Teams
▪ Apply Technology Effectively		○ Productivity and Accountability
○ Information, Media and Technology Skills		▪ Manage Projects
▪ Access and Evaluate Information		▪ Produce Results
		○ Leadership and Responsibility
		▪ Guide and Lead Others
		▪ Be Responsible to Others
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-levelled Questions, Extra Time, Technology Use		

Unit 6. Title: Algebraic Representation		Time Frame:
Standards: 4.NBT.1 4.NBT.4 4.OA.5 4.OA.3 4.NBT.3 4.NBT.6 4.OA.2 4.OA.1 4.NBT.5		
Enduring Understanding: <ul style="list-style-type: none"> Numerical expressions must be evaluated according to the hierarchy outlined in the rules of Order of Operations. Mathematical expressions represent relationships. 	Essential Questions: <ul style="list-style-type: none"> How are patterns used in mathematics? 	
Knowledge and Skills: Students will... <ul style="list-style-type: none"> Identify/Generate/Explain patterns Solve addition and subtraction word problems Assess the reasonableness of answers by rounding and estimating Determine the unknown/variable Write and solve number sentences/equations Order of operations Write and solve multiplication and division word problems Write and evaluate numerical expressions Write and evaluate expressions involving variables Identify and generate nonnumeric patterns Apply properties of operations 	Demonstration of Learning <ul style="list-style-type: none"> Using the Howard County Schools link (https://smart.wikispaces.hcps.org/Grade+4), select Assessing 4.OA.5 then select Assessment 5 	
Suggested Tasks and Activities Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online)	Technology Integration/ Resources: <ul style="list-style-type: none"> SmartBoard 	

Math Curriculum K-8

<ul style="list-style-type: none"> • Watch video McGraw-Hill : My Math Grade 4 Chapter 7 – Patterns & Sequences (connected.mcgraw-hill.com) • Review vocabulary words to show what they know – <i>equation operations, unknown</i> • Am I Ready McGraw-Hill: My Math Grade 4 Chapter 7 – Patterns and Sequences • Problem of the Day; Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 7) • Introduce vocabulary words from McGraw-Hill : My Math Grade 4 Chapter 7 – Patterns & Sequences: <i>input, nonnumeric pattern, numeric pattern, output, pattern, rule sequence, term</i> • Create foldable to provide practice with input/output tables. • Use connecting cubes/symbols/pattern blocks to model patterns 	<ul style="list-style-type: none"> • www.k-5mathteachingresources.com • www.softschools.com • www.aaastudy.com • https://smart.wikispaces.hcps.org/Grade+4 • www.mathplayground.com
---	---

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Measurement		
Interdisciplinary Connections: <u>English Language Arts:</u>		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21 st Century Themes:		
• Global Awareness		
21 st Century Skills:		
• <u>Learning and Innovation Skills</u>		
○ Creativity and Innovation		
▪ Think critically		
▪ Work Creatively with Others		
▪ Implement Innovations		
○ Critical Thinking and Problem Solving		
▪ Reason Effectively		
▪ Use Systems Thinking		
▪ Make Judgments and Decisions		
▪ Solve Problems		
○ Communication and Collaboration		
▪ Communicate Clearly		
▪ Collaborate with Others		
▪ Apply Technology Effectively		
• <u>Information, Media and Technology Skills</u>		
○ Information Literacy		
▪ Access and Evaluate Information		
• <u>Life and Career Skills</u>		
○ ICT Literacy		
▪ Use and Manage Information		
○ Flexibility and Adaptability		
▪ Adapt to Change		
▪ Be Flexible		
○ Initiative and Self-Direction		
▪ Manage Goals and Time		
▪ Work Independently		
▪ Be Self-directed Learners		
○ Social and Cross Cultural Skills		
▪ Interact with others		
▪ Work Effectively in Diverse Teams		
○ Productivity and Accountability		
▪ Manage Projects		
▪ Produce Results		
○ Leadership and Responsibility		
▪ Guide and Lead Others		
▪ Be Responsible to Others		
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Unit 7. Title: Measurement	Time Frame:
<p>Standard and Cumulative Progress Indicators:</p> <p>4.MD.1</p> <p>4.MD.2</p> <p>4.MD.3</p>	
<p>Enduring Understanding:</p> <ul style="list-style-type: none"> • Measurement problems can be represented and solve using models. • Objects have distinct attributes that can be measured. • Standard units provide common language for communication. • The choice of measurement tool depends on the measurable attribute and degree of precision desired. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> • Why do we convert measurements? • How can conversion of measurements help me solve real-world problems? • Why is it important to measure perimeter and area?
<p>Knowledge and Skills:</p> <p>Students will...</p> <ul style="list-style-type: none"> • Measure to half and quarter of an inch • Measure to eighth of an inch • Estimate using customary and metric units of lengths • Know measurement equivalencies within a measurement system • Convert customary and metric units of lengths • Measure perimeter • Apply the formula for perimeter • Use concepts of area to measure area • Apply the formula for area • Relate area and perimeter • Estimate metric units of capacity • Convert metric units of capacity • Estimate customary units of capacity • Convert customary units of capacity • Estimate metric units of mass • Estimate customary units of weight • Convert customary units of weight • Convert metric units of mass • Convert Units of Time • Solve measurement word problems using the four operations 	<p>Demonstration of Learning</p> <ul style="list-style-type: none"> • Using the Howard County Schools link (https://smart.wikispaces.hcpss.org/Grade+4), select Assessing 4.MD.4 then select Task Assessment 1 • Using the Howard County Schools link (https://smart.wikispaces.hcpss.org/Grade+4), select Assessing 4.MD.1 then select Assessment 3 • Using the Howard County Schools link (https://smart.wikispaces.hcpss.org/Grade+4), select Assessing 4.MD.3 then select Assessment

Suggested Tasks and Activities :	Technology Integration/ Resources:
<ul style="list-style-type: none"> • Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) • Watch video McGraw-Hill : My Math Grade 4 Chapter 11, 12, and 13 (connected.mcgraw-hill.com) • Review vocabulary words to show what they know – <i>estimate, length, time, weight, capacity, length, product</i> • Am I Ready McGraw-Hill: My Math Grade 4 Chapter 11, 12, and 13: Customary Measurement, Metric Measurement, and Area & Perimeter • Problem of the Day: Common Core Quick Check (McGraw-Hill: My Math Grade 4 Chapter 11, 12, and 13) • Introduce vocabulary words from McGraw-Hill: My Math Grade 4 Chapter 11, 12, and 13: <i>capacity, convert, cup, customary system, fluid ounce, foot, gallon, line plot ounce, pint, pound, mile, quart, second, ton, weight, yard, centimeter, gram, kilogram, kilometer, liter, mass, meter, metric system, milliliter, millimeter, area, perimeter, square unit, unit square</i> • Create foldable to practice with conversion of measurements within the customary system of measurement; create foldable to practice with the metric system of measurement; create foldable to practice with applying the perimeter and area formulas for rectangles and squares. • Use tools to measure items in the classroom. • Find benchmarks that are meaningful in estimating units. (i.e. inch-finger part). • Use clocks to solve elapsed time problems. • Construct schedules. 	<ul style="list-style-type: none"> • SmartBoard • www.k-5mathteachingresources.com • www.softschools.com • www.math-drills.com

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Geometry		
Interdisciplinary Connections: English Language Arts:		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21 st Century Themes:		
<ul style="list-style-type: none"> Global Awareness 		
21 st Century Skills:		
<ul style="list-style-type: none"> Learning and Innovation Skills <ul style="list-style-type: none"> Creativity and Innovation <ul style="list-style-type: none"> Think critically Work Creatively with Others Implement Innovations Critical Thinking and Problem Solving <ul style="list-style-type: none"> Reason Effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communication and Collaboration <ul style="list-style-type: none"> Communicate Clearly Collaborate with Others Apply Technology Effectively Information, Media and Technology Skills <ul style="list-style-type: none"> Information Literacy Access and Evaluate Information 		
<ul style="list-style-type: none"> Life and Career Skills <ul style="list-style-type: none"> ICT Literacy Flexibility and Adaptability <ul style="list-style-type: none"> Adapt to Change Be Flexible Initiative and Self-Direction <ul style="list-style-type: none"> Manage Goals and Time Work Independently Be Self-directed Learners Social and Cross Cultural Skills <ul style="list-style-type: none"> Interact with others Work Effectively in Diverse Teams Productivity and Accountability <ul style="list-style-type: none"> Manage Projects Produce Results Leadership and Responsibility <ul style="list-style-type: none"> Guide and Lead Others Be Responsible to Others 		
Modifications for Various Learners: ELL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Unit 8. Title: Geometry		Time Frame:
Standards: 4.G.1 4.G.2 4.G.3 4.MD.5 4.MD.6 4.MD.7		
Enduring Understanding: <ul style="list-style-type: none">Point, line, and plane are the foundations of geometry.Objects can be described and compared using their geometric attributes.Polygons can be described and classified by their sides and angles.Transforming an object does not affect its attributes.The measure of an angle depends on the fraction of a circle cut off by its rays.	Essential Questions: <ul style="list-style-type: none">How are different ideas about geometry connected?	
Knowledge and Skills: Students will... <ul style="list-style-type: none">Identify, describe, and classify triangles and quadrilaterals by their attributesDraw and identify points, lines, line segments, rays, and angles in two-dimensional figuresIdentify lines of symmetry/symmetric figuresExplore angles of two-dimensional shapesClassify angles by their attributesMeasure and draw anglesRecognize angle measures as additiveSolve addition and subtraction problems to determine measures of unknown angles	Demonstration of Learning <ul style="list-style-type: none">Pearson Topic 9 Performance AssessmentGeometry Town – Have students create a map of a town which includes certain geometric terms such as shapes, lines, and angles. Students will label map accordingly. This can be tied into Social Studies using map skills and map legends.	
Suggested Tasks and Activities <ul style="list-style-type: none">Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online)	Technology Integration/ Resources: <ul style="list-style-type: none">SmartBoardwww.k-5mathteachingresources.comwww.illuminations.nctm.org	

<ul style="list-style-type: none"> • Watch video McGraw-Hill : My Math Grade 4 Chapter 14 – Geometry (connected.mcgraw-hill.com) • Introduce vocabulary words from McGraw-Hill : My Math Grade 4 Chapter 14- Geometry: <i>acute angle, acute triangle, angle, degree, endpoint, intersecting, line, line of symmetry, line segment, line symmetry, obtuse angle, obtuse triangle, one-degree angle, parallel, parallelogram, perpendicular, point, ray, rectangle, rhombus, right angle, right triangle, square, trapezoid</i> • Review vocabulary words to show what they know – <i>rectangle, square, triangle</i> • Create foldable to practice with measuring and classifying angles. • Use manipulative to explore shapes • Have students go on a scavenger hunt and locate shapes within/outside the school. 	<ul style="list-style-type: none"> • www.mathplayground.com • http://nlvm.usu.edu/en/nav/vlibrary.html
--	---

Content Area: Mathematics		Grade Level : Fourth
Unit Title: Data		
Interdisciplinary Connections: English Language Arts:		
CCSS.ELA-LITERACY.SL.4.1 Engage effectively in a range of collaborative discussions with diverse partners on <i>grade 4 topics and texts</i> , building on others' ideas and expressing their own clearly.		
CCSS.ELA-LITERACY.SL.4.1.A Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.		
CCSS.ELA-LITERACY.SL.4.1.B Follow agreed-upon rules for discussions and carry out assigned roles.		
CCSS.ELA-LITERACY.SL.4.1.C Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.		
CCSS.ELA-LITERACY.SL.4.1.D Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.		
CCSS.ELA-LITERACY.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		
CCSS.ELA-LITERACY.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.		
CCSS.ELA-LITERACY.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		
CCSS.ELA-LITERACY.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		
CCSS.ELA-LITERACY.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate; use formal English when appropriate to task and situation.		
21st Century Themes:		
<ul style="list-style-type: none"> Global Awareness 		
21st Century Skills:		
<ul style="list-style-type: none"> Learning and Innovation Skills <ul style="list-style-type: none"> Creativity and Innovation <ul style="list-style-type: none"> Think critically Work Creatively with Others Implement Innovations Critical Thinking and Problem Solving <ul style="list-style-type: none"> Reason Effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communication and Collaboration <ul style="list-style-type: none"> Communicate Clearly Collaborate with Others Apply Technology Effectively Information, Media and Technology Skills <ul style="list-style-type: none"> Access and Evaluate Information 		<ul style="list-style-type: none"> <ul style="list-style-type: none"> ICT Literacy Life and Career Skills <ul style="list-style-type: none"> Flexibility and Adaptability <ul style="list-style-type: none"> Adapt to Change Be Flexible Initiative and Self-Direction <ul style="list-style-type: none"> Manage Goals and Time Work Independently Be Self-directed Learners Social and Cross Cultural Skills <ul style="list-style-type: none"> Interact with others Work Effectively in Diverse Teams Productivity and Accountability <ul style="list-style-type: none"> Manage Projects Produce Results Leadership and Responsibility <ul style="list-style-type: none"> Guide and Lead Others Be Responsible to Others
Modifications for Various Learners: ESL, IEPs, 504s, Gifted and Talented: Visual Supports, Hands-On Activities, Rephrasing, Clarification of Directions, Student Redirection, Choice of Activities, Multi-Levelled Questions, Extra Time, Technology Use		

Unit 9. Title: Data	
Standards: 4.MD.4	Time Frame:
Enduring Understanding: <ul style="list-style-type: none"> • Graphs convey data in concise ways. • A line plot organizes data on a number line and is useful for showing visually how a set of data is distributed. • The type of graph used is influenced by the kind of data and the function of the graph. 	Essential Questions: <ul style="list-style-type: none"> • How can data be represented?
Knowledge and Skills: Students will... <ul style="list-style-type: none"> • Organize, represent, and interpret data • Generate data in fractions of an inch • Make line plots using generated linear measurement data • Solve addition and subtraction of fractions problems involving line plot analysis 	Demonstration of Learning <ul style="list-style-type: none"> • ***This DOL is the DOL from Measurement*** Using the Howard County Schools link (https://smart.wikispaces.hcpss.org/Grade+4), select Assessing 4.MD.4 then select Task Assessment 1
Suggested Tasks and Activities <ul style="list-style-type: none"> • Math At Home Letters (McGraw-Hill: My Math Grade 4 – print from online) • McGraw-Hill : My Math Grade 4 Chapter 11 Lesson 8 – Display Measurement Data in a Line Plot (connected.mcgraw-hill.com) • Note – Standards and activities are also addressed in previous topics • Measure objects to nearest $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$ inch. Display data in line plot. 	Technology Integration/ Resources: www.k-5mathteachingresources.com www.illuminations.nctm.org