Mathematics 1st Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Operations and Algebraic Thinking **1.OA.A:** Represent and solve problems involving addition and subtraction. **1.OA.B:** Understand and apply properties of operations and the relationship between addition and subtraction. **1.OA.C:** Add and subtract within 20. **1.OA.D:** Work with addition and subtraction equations. **Number and Operations in Base Ten** **1.NBT.A:** Extend the counting sequence. **1.NBT.B:** Understand place value. **1.NBT.C:** Use place value understanding and properties of operations to add and subtract. **Measurement and Data** **1.MD.A:** Measure lengths indirectly and by iterating length units. **1.MD.B:** Tell and write time. **1.MD.C:** Represent and interpret data. **Geometry** **1.G.A:** Reason with shapes and their attributes.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
SMART Board, iPads, Elmo	

Mathematics 1st Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Addition Concepts 1.OA.A 1.OA.B 1.OA.C 1.OA.D	**Addition Concepts** What does it mean to add numbers?	**Addition Concepts** -Addition Stories -Model Addition -Addition Number Sentences -Add 0 -Vertical Addition -Ways to make 4, 5, 6, 7, 8, 9, and 10 -Missing parts of 10 -True and False Statements	**Addition Concepts** -Use manipulatives to model addition stories -Add two parts to make a whole -Write addition number sentences -Find sums by adding zero -Write addition facts horizontally and vertically -Use counters to make sums of 4, 5, 6, 7, 8, and 9 in different ways -Use a ten-frame and counters to make sums of ten in different ways -Identify missing parts of 10 -Identify math statements as true or false	**Addition Concepts** -Observations -Worksheets -Entrance slips -Chapter tests	**Addition Concepts** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex
Subtraction Concepts 1.OA.A 1.OA.B 1.OA.D	**Subtraction Concepts** What does it mean to subtract numbers?	**Subtraction Concepts** -Subtraction Stories -Model Subtraction -Subtraction Number Sentences -Subtract 0 and All -Vertical Subtraction -Compare Groups -Ways to subtract 4, 5, 6, 7, 8, 9, and 10 -Relate Addition and Subtraction -True and False Statements	**Subtraction Concepts** -Use manipulatives to model subtraction stories -Subtract parts from whole -Write subtraction number sentences -Subtract 0 or find a difference of 0 -Write subtraction facts horizontally and vertically -Compare groups of up to nine objects -Use counters to subtract the difference of 4, 5, 6, 7, 8, and 9 in different ways -Find related addition and subtraction facts -Determine whether math statements are true or false	**Subtraction Concepts** -Observations -Worksheets -Entrance slips -Chapter tests	**Subtraction Concepts** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex

Mathematics 1st Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Addition Strategies to 20 1.OA.A 1.OA.B 1.OA.C	**Addition Strategies to 20** How are strategies used to add numbers?	**Addition Strategies to 20** -Count on 1, 2, or 3 -Count on using pennies -Use a number line to add -Use doubles and near doubles to add -Make ten to add -Add in any order -Add three numbers -Relate addition and subtraction	**Addition Strategies to 20** -Count on from the greater number to find the sum -Use pennies to count on -Use a number line to help find the sum -Use doubles and near doubles to help find the sum -Use counters and a ten frame to make sums greater than ten -Identify related addition facts -Add three numbers by using doubles and making ten	**Addition Strategies to 20** -Observations -Worksheets -Entrance slips -Chapter tests	**Addition Strategies to 20** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex
Subtraction Strategies to 20 1.OA.A 1.OA.B 1.OA.C	**Subtraction Strategies to 20** How are strategies used to subtract numbers?	**Subtraction Strategies to 20** -Count back 1, 2, or 3 -Use a number line to subtract -Use doubles to subtract -Write a number sentence -Make 10 to subtract -Use related facts to add and subtract -Fact families -Missing Addends	**Subtraction Strategies to 20** -Count back by 1, 2, or 3 -Use a number line to subtract -Relate double addition facts to subtraction facts -Write a number sentence to solve problems -Use the make ten to subtract strategy -Identify similarities in related addition and subtraction number sentences -Identify similarities in fact families -Find the missing addend	**Subtraction Strategies to 20** -Observations -Worksheets -Entrance slips -Chapter tests	**Subtraction Strategies to 20** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex

Mathematics 1st Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Place Value 1.OA.A 1.OA.B 1.OA.C 1.NBT.A 1.NBT.B 1.NBT.C	**Place Value** How is place value used to identify numbers up to 120?	**Place Value** -Numbers 11-19 -Tens -Count by tens with dimes -Ten and some more -Tens and ones -Make a table -Numbers to 100 -Ten more, ten less -Count by 5's -Use models to compare numbers -Use symbols to compare numbers -Numbers to 120 -Count to 120 -Read and write numbers to 120 -Identify penny, nickel , dime, and quarter and their values -Count mixed coins up to $1.00	**Place Value** -Count and write numbers 11 to 19 -Count groups of tens -Use dimes to count by tens -Make groups of ten and some more -Make groups of tens and ones -Make tables to solve problems -Write numbers to 100 in different ways -Identify numbers that are ten more and ten less than a given number -Use nickels to count by fives -Compare two two-digit numbers using symbols -Make groups of hundreds, tens, and ones -Count numerals up to 120 -Read and write numbers up to 120	**Place Value** -Observations -Worksheets -Entrance slips -Chapter tests	**Place Value** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex
Two-Digit Addition and Subtraction 1.NBT.C	**Two-Digit Addition and Subtraction** How are two-digit numbers added and subtracted?	**Two-Digit Addition and Subtraction** -Add tens -Count on tens and ones -Add tens and ones -Add tens and ones with regrouping -Subtract tens -Count back by tens -Related addition and subtraction of tens	**Two-Digit Addition and Subtraction** -Count on by tens and ones to find sums within 100 -Add tens and ones to find sums within 100 -Guess, check, revise to solve problems -Add tens and ones and find the sum with regrouping -Subtract tens to find the difference -Use a number line to count back by tens to subtract -Relate addition and subtraction facts to solve problems	**Two-Digit Addition and Subtraction** -Observations -Worksheets -Entrance slips -Chapter tests	**Two-Digit Addition and Subtraction** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex

Mathematics 1st Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Organize and Use Graphs 1.MD.C	**Organize and Use Graphs** How are graphs made and read?	**Organize and Use Graphs** -Tally charts -Make a table -Make and read picture graphs -Make and read bar graphs	**Organize and Use Graphs** -Make and read a tally chart -Make a table to solve problems -Make a picture graph -Interpret data on a picture graph -Use data to make a bar graph - Read a bar graph	**Organize and Use Graphs** -Observations -Worksheets -Entrance slips -Chapter tests	**Organize and Use Graphs** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex
Measurement and Time 1.MD.A 1.MD.B	**Measurement and Time** How is length measured? How is time read and told?	**Measurement and Time** -Compare and order lengths -Nonstandard units of length -Time to the hour: Analog and Digital -Time to the half hour: Analog and Digital	**Measurement and Time** -Compare lengths of objects using indirect measurement -Compare and order lengths of objects -Measure the length of objects using nonstandard units -Read and write time to the hour and half hour on analog clock -Use a digital clock to tell and write time to the hour and half hour	**Measurement and Time** -Observations -Worksheets -Entrance slips -Chapter tests	**Measurement and Time** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex
Two-Dimensional Shapes and Equal Shares 1.G.A	**Two-Dimensional Shapes and Equal Shares** How are two-dimensional shapes and equal shares identified and described?	**Two-Dimensional Shapes and Equal Shares** -Squares, rectangles, triangles, trapezoids, and circles -Compare shapes -Composite shapes -Equal parts -Halves -Quarters and Fourths-Compose new shapes from composite shapes -Take apart two-dimensional shapes	**Two-Dimensional Shapes and Equal Shares** -Use attributes to identify and describe squares, rectangles, trapezoids, triangles, and circles -Compare two-dimensional shapes -Use two-dimensional shapes to make a composite shape and compose new shapes from the composite shape -Partition shapes into two or four equal shares and identify how many parts there are in the whole -Partition shapes into two and four equal parts	**Two-Dimensional Shapes and Equal Shares** -Observations -Worksheets -Entrance slips -Chapter tests	**Two-Dimensional Shapes and Equal Shares** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex

Mathematics 1st Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Three-Dimensional Shapes 1.G.A	**Three-Dimensional Shapes** How are three-dimensional shapes identified and described?	**Three-Dimensional Shapes** -Cubes, cones, prisms, cylinders, pyramids, and spheres -Compare shapes -Composite shapes	**Three-Dimensional Shapes** -Use attributes to identify and describe cubes, cones, prisms, cylinders, pyramids, and spheres -Compare three-dimensional shapes -Use three-dimensional shapes to make a composite shape -Compose new shapes from composite shapes -Take apart three-dimensional shapes	**Three-Dimensional Shapes** -Observations -Worksheets -Entrance slips -Chapter tests	**Three-Dimensional Shapes** -*Big Ideas Math Grade 1* by Big Ideas Learning LLC (2022) -Manipulatives -Reflex

Mathematics 2nd Grade

Common Core Standards for Mathematics	
Content Standards **Operations and Algebraic Thinking** **2.OA.A:** Represent and solve problems involving addition and subtraction. **2.OA.B:** Add and subtract within 20. **2.OA.C:** Work with equal groups of objects to gain foundations for multiplication. **Number and Operations in Base Ten** **2.NBT.A:** Understand place value. **2.NBT.B:** Use place value understanding and properties of operations to add and subtract. **Measurement and Data** **2.MD.A:** Measure and estimate lengths in standard units. **2.MD.B:** Relate addition and subtraction to length. **2.MD.C:** Work with time and money. **2.MD.D:** Represent and interpret data. **Geometry** **2.G.A:** Reason with shapes and their attributes.	**Mathematical Practices** **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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, Reflex, ConnectED, SplashLearn	

Standards	Essential Questions	Content	Skills	Assessment	Resources
Addition and Subtraction: within 20 2.OA.A 2.OA.B	**Addition and Subtraction: within 20** What strategies are used to add and subtract?	**Addition and Subtraction: within 20** -Strategies: number line, doubles, doubles plus one, fact families, make ten, count on, count back, magic nine -Single digit -Commutative Property -Identity Property	**Addition and Subtraction: within 20** -Add and subtract single digit numbers to 20 -Use strategies to add and subtract -Add three numbers -Write a number sentence to solve problems -Solve two step word problems	**Addition and Subtraction: within 20** -Homework -Fluency Practice -Test	**Addition and Subtraction: within 20** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 2nd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Number Sense 2.OA.C	**Number Sense** How can equal groups help when adding?	**Number Sense** -Skip count on hundreds chart by 2s, 5s, 10s, and 100s -Repeated addition -Arrays -Even and odd numbers -Sums of equal numbers	**Number Sense** -Determine whether a number is even or odd -Use patterns to skip count starting at any number -Used repeated addition to add equal groups -Use arrays for repeated addition -Find a pattern to solve problems	**Number Sense** -Homework -Fluency Practice -Test	**Number Sense** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives
Addition and Subtraction: within 100 2.NBT.B	**Addition and Subtraction: within 100** How can two-digit numbers be added and subtracted?	**Addition and Subtraction: within 100** -Regrouping -Two-digit numbers -Rewrite problems vertically -Addition and subtraction relationship -Manipulatives, drawings and numerical	**Addition and Subtraction: within 100** -Use regrouping to solve addition and subtraction problems -Rewrite addition and subtraction problems presented horizontally -Use addition to check subtraction -Use manipulatives or drawings to solve a problem -Transition from manipulatives, to representational drawings, to number representations to solve a problem -Write a number sentence to solve problems -Solve two step word problems	**Addition and Subtraction: within 100** -Homework -Fluency Practice -Test	**Addition and Subtraction: within 100** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 2nd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Place Value: to 1000 2.NBT.A	**Place Value: to 1000** How is place value used?	**Place Value: to 1000** -Skip count by 5s, 10s, and 100s -Model 1s, 10s, and 100s -Compare -Standard form -Expanded form -Word form	**Place Value: to 1000** -Read, write and model numbers to 999 -Compare numbers to 1000 -Use greater than, less than, and equal to symbols -Identify and use words, models, and expanded form to represent numbers to 999 -Read and solve word problems	**Place Value: to 1000** -Homework -Fluency Practice -Test	**Place Value: to 1000** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives
Addition and Subtraction: within 1000 2.NBT.B	**Addition and Subtraction: within 1000** How can three-digit numbers be added and subtracted?	**Addition and Subtraction: within 1000** -Mental math -Regrouping -Three-digit numbers -Rewrite problems vertically -Addition and subtraction relationship -Subtract across zeros -Manipulatives, drawings and numerical	**Addition and Subtraction: within 1000** -Use regrouping to solve addition and subtraction problems -Mentally add and subtract 10s and 100s -Rewrite addition and subtraction problems presented horizontally -Use addition to check subtraction -Use manipulatives or drawings to solve a problem -Transition from manipulatives, to representational drawings, to number representations to solve a problem -Write a number sentence to solve problems	**Addition and Subtraction: within 1000** -Homework -Fluency Practice -Test	**Addition and Subtraction: within 1000** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 2nd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Measurement: money 2.MD.C	**Measurement: money** How is money counted and used?	**Measurement: money** -Penny, nickel, dime, and quarter -Dollar bills -Adding groups of coins	**Measurement: money** -Identify coins and bills -Write amounts using dollar and cent signs -Add groups of coins using skip counting -Solve word problems involving money	**Measurement: money** -Homework -Fluency Practice -Test	**Measurement: money** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives
Measurement: time 2.MD.C	**Measurement: time** How is time used and written?	**Measurement: time** -Time to the hour -Time to the half hour -Time to the five minutes -Time to the quarter hour -Analog and digital -AM and PM	**Measurement: time** -Tell and write time to the nearest hour, half hour, five minutes, and quarter hour -Distinguish between analog and digital -Use AM and PM when telling and writing time -Solve word problems involving time	**Measurement: time** -Homework -Fluency Practice -Test	**Measurement: time** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives
Measurement: customary and metric units 2.MD.A 2.MD.B 2.MD.D	**Measurement: customary and metric units** How are objects measured?	**Measurement: customary and metric units** Customary: -Inches -Half inches -Feet -Yards Metric: -Centimeters -Meters -Measuring tools: rulers, yard sticks, and tape measure -Estimation -Compare	**Measurement: customary and metric units** -Measure objects using customary and metric units -Choose the appropriate tool to measure objects -Label measurements with correct units -Use measurement to compare lengths -Estimate length of an object and check with a tool -Solve word problems using measurement	**Measurement: customary and metric units** -Homework -Fluency Practice -Test	**Measurement: customary and metric units** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 2nd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Data Analysis 2.MD.D	**Data Analysis** How is data recorded and analyzed?	**Data Analysis** -Surveys -Picture Graphs -Bar Graphs -Line Plots	**Data Analysis** -Take a survey and organize the data using tally marks -Use data to create and analyze graphs and line plots -Draw conclusions and answer questions based on graphs and line plots	**Data Analysis** -Homework -Fluency Practice -Test	**Data Analysis** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives
Geometry 2.G.A	**Geometry** How are shapes described and analyzed?	**Geometry** -Two-dimensional shapes: triangle, quadrilaterals, pentagons, hexagons -Three-dimensional shapes: cubes -Sides -Angles -Faces -Edges -Vertices -Shapes and solids -Partitioning: halves, thirds and fourths -Area	**Geometry** -Identify two and three-dimensional shapes -Recognize attributes of two-dimensional shapes -Describe the faces, edges, and vertices of three-dimensional shapes -Partition two dimensional shapes into halves, thirds, and fourths -Determine the area of a rectangle	**Geometry** -Homework -Fluency Practice -Test	**Geometry** -*Big Ideas Math Grade 2* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 3rd Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Operations and Algebraic Thinking **3.OA.A:** Represent and solve problems involving multiplication and division. **3.OA.B:** Understand properties of multiplication and the relationship between multiplication and division. **3.OA.C:** Multiply and divide within 100. **3.OA.D:** Solve problems involving the four operations, and identify and explain patterns in arithmetic. **Number and Operations in Base Ten** **3.NBT.A:** Use place value understanding and properties of operations to perform multi-digit arithmetic. **Number and Operations-Fractions** **3.NF.A:** Develop understanding of fractions as numbers. **Measurement and Data** **3.MD.A:** Solve problems involving measurement and estimation. **3.MD.B:** Represent and interpret data. **3.MD.C:** Geometric measurement: understand concepts of area and relate area to multiplication and to addition. **3.MD.D:** Geometric measurement: recognize perimeter. **Geometry** **3.G.A:** Reason with shapes and their attributes.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, Reflex	

Mathematics 3rd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Place Value 3.NBT.A	**Place Value** How can numbers be expressed, ordered, and compared?	**Place Value** -Place value through thousands -Expanded form -Word form -Standard form -Compare -Order -Round to the nearest ten -Round to the nearest hundred	**Place Value** -Read, write, and identify place value of whole numbers through thousands -Compare and order whole numbers through thousands -Round whole numbers to the nearest ten and hundred	**Place Value** -Assessment -Teacher created materials	**Place Value** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Addition 3.NBT.A	**Addition** How can place value help to add larger numbers?	**Addition** -Addition Property -Associative Property -Commutative Property -Identity Property -Estimation of sums -Add three and four digit numbers	**Addition** -Use the properties of addition to add whole numbers -Estimate sums using rounding -Use place value to add three and four digit numbers with regrouping	**Addition** -Assessment -Teacher created materials	**Addition** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Subtraction 3.NBT.A	**Subtraction** How are the operations of subtraction and addition related?	**Subtraction** -Estimation of differences -Subtraction with regrouping -Subtract three and four digit numbers -Subtract across zeros	**Subtraction** -Estimate difference using rounding to the nearest ten or hundred -Use regrouping to subtract three and four digit numbers -Use regrouping to subtract across zeros	**Subtraction** -Assessment -Teacher created materials	**Subtraction** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Multiplication Understanding 3.OA.A 3.OA.B 3.OA.D	**Multiplication Understanding** What does multiplication mean?	**Multiplication Understanding** -Multiplication as repeated addition -Arrays in multiplication -Commutative Property	**Multiplication Understanding** -Relate addition and multiplication -Use arrays to explore and model multiplication -Model the Commutative Property to find products	**Multiplication Understanding** -Assessment -Teacher created materials	**Multiplication Understanding** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)

Mathematics 3rd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Multiplication Facts and Strategies 3.OA.A 3.OA.B 3.OA.C 3.OA.D	**Multiplication Facts and Strategies** How are strategies used to multiply?	**Multiplication Facts and Strategies** -Multiply 0-12 -Multiples of 10 -Distributive Property -Identity Property -Zero Property -Associative Property	**Multiplication Facts and Strategies** -Use strategies to multiply numbers 0-12 -Use basic facts and patterns to multiply a number by a multiple of 10 -Use the properties of multiplication to help solve multiplication problems	**Multiplication Facts and Strategies** -Assessment -Teacher created materials	**Multiplication Facts and Strategies** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Division Understanding 3.OA.A 3.OA.B 3.OA.D	**Division Understanding** What does division mean?	**Division Understanding** -Division of equal groups -Division as repeated subtraction -Multiplication and division as inverse operations	**Division Understanding** -Use models to relate subtraction and division -Divide using related multiplication facts	**Division Understanding** -Assessment -Teacher created materials	**Division Understanding** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Division Facts and Strategies 3.OA.A 3.OA.B 3.OA.C 3.OA.D	**Division Facts and Strategies** How are strategies used to divide?	**Division Facts and Strategies** -Divide 0-12	**Division Facts and Strategies** -Use strategies to divide numbers 0-12	**Division Facts and Strategies** -Assessment -Teacher created materials	**Division Facts and Strategies** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Fraction Understanding 3.NF.A 3.G.A	**Fraction Understanding** How can fractions be used to represent numbers and their parts?	**Fraction Understanding** -Unit fractions -Equal parts of a whole -Numerator -Denominator -Equivalent fractions -Compare fractions -Partition shapes	**Fraction Understanding** -Explore and model unit fractions -Explore and identify equal parts of a whole -Use models to find equivalent fractions -Compare fractions with like denominators -Partition shapes into parts with equal areas	**Fraction Understanding** -Assessment -Teacher created materials	**Fraction Understanding** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)

Mathematics 3rd Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Represent and Interpret Data 3.MD.B	**Represent and Interpret Data** How is useful information obtained from a set of data?	**Represent and Interpret Data** -Bar graph -Picto graph -Line graph -Tally chart -Frequency table	**Represent and Interpret Data** -Collect and organize data to create graphs -Read and interpret data from a variety of graphs	**Represent and Interpret Data** -Assessment -Teacher created materials	**Represent and Interpret Data** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Measurement 3.MD.A 3.MD.B 3.MD.C 3.MD.D	**Measurement** How are measurements found and used?	**Measurement** -Time -Liquid volume -Mass of object -Length -Perimeter -Area	**Measurement** -Solve problems involving elapsed time, liquid volume, and mass of objects -Measure lengths using halves and fourths of an inch -Read, write and tell time on analog and digital clocks -Understand between a.m. and p.m. -Measure and find perimeter and area of polygons	**Measurement** -Assessment -Teacher created materials	**Measurement** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)
Geometry 3.G.A	**Geometry** How are geometric shapes used to solve real-world and mathematical problems?	**Geometry** -Two dimensional shapes -Shape attributes -Polygons -Quadrilaterals	**Geometry** -Identify two dimensional shapes and their attributes	**Geometry** -Assessment -Teacher created materials	**Geometry** -*Big Ideas Math Grade 3* by Big Ideas Learning LLC (2022)

Mathematics 4th Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Operations and Algebraic Thinking **4.OA.A:** Use the four operations with whole numbers to solve problems. **4.OA.B:** Gain familiarity with factors and multiples. **4.OA.C:** Generate and analyze patterns. **Number and Operations in Base Ten** **4.NBT.A:** Generalize place value understanding for multi-digit whole numbers. **4.NBT.B:** Use place value understanding and properties of operations to perform multi-digit arithmetic. **Number and Operations-Fractions** **4.NBF.A:** Extend understanding of fraction equivalence and ordering. **4.NBF.B:** Build fractions from unit fractions. **4.NBF.C:** Understand decimal notation for fractions, and compare decimal fractions. **Measurement and Data** **4.MD.A:** Solve problems involving measurement and conversion of measurements. **4.MD.B:** Represent and interpret data. **4.MD.C:** Geometric measurement: understand concepts of angle and measure angles. **Geometry** **4.G.A:** Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, computer, ALEKS	

Mathematics 4th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Place Value 4.NBT.A	**Place Value** How does place value help represent the value of numbers?	**Place Value** -Reading and writing numbers -Period -Standard, expanded, and word form -Model place value relationships -Comparing -Ordering -Rounding	**Place Value** -Read numbers appropriately -Recognize the value of a digit in its place -Write and understand the relationship of numbers in standard, expanded, and word form -Compare numbers -Order numbers -Round numbers	**Place Value** -Chapter test	**Place Value** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives
Addition and Subtraction: Whole Numbers 4.NBT.B	**Addition and Subtraction: Whole Numbers** How are different strategies used to add or subtract?	**Addition and Subtraction: Whole Numbers** -Sum -Difference -Addition properties -Subtraction rules -Estimation	**Addition and Subtraction: Whole Numbers** -Subtract across zeros -Add using borrowing -Subtract using regrouping -Estimate to specified place values to find sums and differences -Understand and apply addition properties and subtraction rules	**Addition and Subtraction: Whole Numbers** -Chapter test	**Addition and Subtraction: Whole Numbers** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives
Multiplication: Whole Numbers 4.NBT.B 4.OA.A	**Multiplication: Whole Numbers** How are multiplication and division related?	**Multiplication: Whole Numbers** -Multiple 10s, 100s, and 1000s -Estimation of products -Multiplication properties -Multiplication strategies -Regroup -Multi-step word problems	**Multiplication: Whole Numbers** -Multiply whole numbers of up to four digits by a one-digit whole number -Multiply two two-digit numbers -Estimate to specified place values to find products -Understand and apply multiplication properties -Apply different multiplication strategies -Understand place value to be able to regroup -Read and solve multi-step word problems	**Multiplication: Whole Numbers** -Chapter test	**Multiplication: Whole Numbers** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 4th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Factors and Multiples 4.OA.B 4.OA.C	**Factors and Multiples** How do factors and multiples apply to multiplication and division?	**Factors and Multiples** -Prime number -Composite number -Factors -Multiples -Patterns -Order of operations -Divisibility rules	**Factors and Multiples** -Identify prime and composite numbers -Understand factors -List factors of a given number -Find multiples of a given number -Identify patterns in numbers -Understand divisibility rules	**Factors and Multiples** -Chapter test	**Factors and Multiples** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives
Division: Whole Numbers 4.NBT.B 4.OA.A	**Division: Whole Numbers** How does division affect numbers?	**Division: Whole Numbers** -Dividend -Divisor -Quotient -Remainder -Divide multiples of 10, 100, and 1000 -Estimation of quotients -Multi-step word problems -Distributive Property -Division strategies -Quotients with zeros	**Division: Whole Numbers** -Understand vocabulary and use to solve problems -Use estimation to divide -Understand and apply the Distributive Property -Understand how place value impacts division -Apply different division strategies -Use division to solve word problems -Divide with zeros -Divide whole numbers of up to four digits by a one-digit whole number	**Division: Whole Numbers** -Chapter test	**Division: Whole Numbers** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 4th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Fractions 4.NF.A	**Fractions** How can different fractions name the same amount?	**Fractions** -Numerator -Denominator -Factors -Multiples -Prime -Composite -Equivalent fractions -Simplest form -Common denominators -Compare -Order -Mixed numbers -Improper fractions	**Fractions** -Understand and generate equivalent fractions -Make a fraction in simplest form -Find common denominators -Compare and order fractions -Convert mixed numbers to improper fractions -Convert improper fractions to mixed numbers	**Fractions** -Chapter test	**Fractions** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives
Fractions: Addition and Subtraction 4.NF.A 4.NF.B	**Fractions: Addition and Subtraction** How are operations used to model real world fractions?	**Fractions: Addition and Subtraction** -Add and subtract with like denominators -Models -Subtraction with renaming -Add and subtract mixed numbers -Multi-step word problems	**Fractions: Addition and Subtraction** -Add and subtract fractions with like denominators -Add and subtract mixed numbers with like denominators -Use models to add and subtract fractions and mixed numbers -Solve word problems including fractions	**Fractions: Addition and Subtraction** -Chapter test	**Fractions: Addition and Subtraction** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives
Fractions: Multiplication 4.NF.B	**Fractions: Multiplication** How is multiplication used to model real world fractions?	**Fractions: Multiplication** -Multiplication of a fraction by a whole number -Multiplication of a mixed number by a whole number -Multi-step problems	**Fractions: Multiplication** -Multiply fractions by whole numbers -Multiply mixed numbers by whole numbers -Solve word problems including fractions	**Fractions: Multiplication** -Chapter test	**Fractions: Multiplication** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 4th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Fractions and Decimals 4.NF.C	**Fractions and Decimals** How are fractions and decimals related?	**Fractions and Decimals** -Place value through hundredths -Modeling -Equivalent fractions and decimals -Money -Compare and order decimals	**Fractions and Decimals** -Read and write decimal numbers through hundredths place -Use place value and models to add fractions with denominator of 10 or 100 -Use equivalent fractions to add tenths and hundredths -Understand relationship of decimal numbers and money -Compare and order decimals through the hundredths place	**Fractions and Decimals** -Chapter test	**Fractions and Decimals** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives
Measurement and Data 4.MD.A 4.MD.B	**Measurement and Data** How can conversion of measurements help solve real world problems? How can algebraic knowledge be used to solve problems in the real world?	**Measurement and Data** -Units of length, weight, time, and volume -Metric system -Customary system -Conversion -Line plot -Multi-step problems	**Measurement and Data** -Convert measurements within a given system from larger units to smaller units -Make a line plot to display measurements in fractions -Solve problems using line plots -Use algebraic knowledge and formulas to solve real world problems -Use operations to solve measurement word problems	**Measurement and Data** -Chapter test	**Measurement and Data** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 4th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Geometry 4.MD.C 4.G.A	**Geometry** How are different ideas about geometry connected?	**Geometry** -Points -Lines -Line segments -Rays -Angles -Angle measurement -Shapes -Properties -Perpendicular -Parallel -Intersecting lines -Line of symmetry -Complimentary angles -Supplementary angles -Circle	**Geometry** -Identify lines, line segment, ray, and angles -Identify parallel, perpendicular and intersecting lines -Classify angles -Classify triangles and quadrilaterals -Use a protractor to measure angles -Find and draw lines of symmetry -Join and separate angles -Understand relationship between angles and circles	**Geometry** -Chapter test	**Geometry** -*Big Ideas Math Grade 4* by Big Ideas Learning LLC (2022) -Manipulatives

Mathematics 5th Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Operations and Algebraic Thinking **5.OA.A:** Write and interpret numerical expressions. **5.OA.B:** Analyze patterns and relationships. **Number and Operations in Base Ten** **5.NBT.A:** Understand the place value system. **5.NBT.B:** Perform operations with multi-digit whole numbers and with decimals to hundredths. **Number and Operations-Fractions** **5.NF.A**: Use equivalent fractions as a strategy to add and subtract fractions. **5.NF.B:** Apply and extend previous understandings of multiplication and division. **Measurement and Data** **5.MD.A:** Convert like measurement units within a given measurement system. **5.MD.B:** Represent and interpret data. **5.MD.C:** Geometric measurement: understand concepts of volume. **Geometry** **5.G.A:** Graph points on the coordinate plane to solve real-world and mathematical problems. **5.G.B:** Classify two-dimensional figures into categories based on their properties.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, ALEKS	

Mathematics 5th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Place Value 5.NBT.A	**Place Value** How does the position of a digit in the number relate to its value?	**Place Value** -Place value chart -Period -Place -Place value -Standard form -Expanded form -Word form -Decimal -Decimal point -Equivalent decimals -Powers of 10	**Place Value** -Read, write and compare whole numbers through millions -Read and write whole numbers and decimal numbers in standard, expanded, and word form -Represent fractions as decimals in the powers of 10 -Read, write and compare decimals through thousandths -Order whole numbers and decimals using inequality symbols -Use place value understanding to round whole numbers and decimals -Explain patterns in the number of zeros of the product in the powers of 10	**Place Value** -Quizzes -Tests	**Place Value** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)
Multiplication: Whole Numbers 5.NBT.A 5.NBT.B	**Multiplication: Whole Numbers** How can different strategies be used to multiple whole numbers?	**Multiplication: Whole Numbers** -Prime factorization -Exponent -Base -Power -Squared -Cubed -Distributive Property -Compatible numbers -Estimation	**Multiplication: Whole Numbers** -Recall and use the patterns of prime factorization -Use powers and exponents -Explore multiplication using equations, rectangular arrays, and area models -Incorporate properties in multiplication -Multiply up to a three-digit number by a two-digit number -Use compatible numbers to determine if an answer is sensible	**Multiplication: Whole Numbers** -Quizzes -Tests	**Multiplication: Whole Numbers** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)

Mathematics 5th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Division: Whole Numbers 5.NBT.B 5.NFA.B	**Division: Whole Numbers** How can different strategies be used to divide whole numbers?	**Division: Whole Numbers** -Fact family -Unknown variable -Dividend -Divisor -Quotient -Remainder -Estimation	**Division: Whole Numbers** -Understand how division and multiplication are related -Explore division using equations, rectangular arrays, and area models -Divide up to a four-digit dividend and two-digit divisor -Understand how to interpret a remainder as a fraction -Use compatible numbers to determine if an answer is sensible	**Division: Whole Numbers** -Quizzes -Tests	**Division: Whole Numbers** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)
Decimals: Addition and Subtraction 5.NBT.A 5.NBT.B	**Decimals: Addition and Subtraction** How can place value and properties be used to add and subtract decimals?	**Decimals: Addition and Subtraction** -Commutative Property of Addition -Associative Property of Addition -Identity Property of Addition -Rounding	**Decimals: Addition and Subtraction** -Round decimal numbers using place value understanding -Compare decimal numbers using the inequality symbols -Add and subtract decimals using different methods -Add and subtract money -Apply the properties to add decimals mentally	**Decimals: Addition and Subtraction** -Quizzes -Tests	**Decimals: Addition and Subtraction** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)
Decimals: Multiplication and Division 5.NBT.A 5.NBT.B	**Decimals: Multiplication and Division** How is multiplying and dividing decimals similar to multiplying and dividing whole numbers?	**Decimals: Multiplication and Division** -Decimal -Estimate -Place value	**Decimals: Multiplication and Division** -Apply knowledge of multiplication and division to decimals -Explain patterns in the placement of the decimal point when a decimal is multiplied or divided	**Decimals: Multiplication and Division** -Quizzes -Tests	**Decimals: Multiplication and Division** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)

Mathematics 5th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Expressions and Patterns 5.OA.A 5.OA.B 5.G.A	**Expressions and Patterns** How are patterns used to solve problems?	**Expressions and Patterns** -Evaluate -Numerical expressions -Order of operations -Sequence -Term -Coordinate plane -Origin -Ordered pair -X-coordinate -Y-coordinate -Axis -Parallel -Perpendicular	**Expressions and Patterns** -Distinguish between an expression and equation -Write and evaluate numerical expressions -Use the order of operations to evaluate expressions -Write verbal phrases as numerical expressions -Use number and operation symbols -Solve problem by working backwards -Generate numerical patterns and identify pattern relationships -Form and graph ordered pairs using the pattern relationship -Plot points on a coordinate plane -Graph points using the ordered pairs	**Expressions and Patterns** -Quizzes -Tests	**Expressions and Patterns** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)

Mathematics 5th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Fractions: Basics 5.NF.A 5.NF.B	**Fractions: Basics** How can the understanding of fractions be used to solve problems?	**Fractions: Basics** -Numerator -Denominator -Equivalent fractions -Simplest form -Common factors -Greatest common factor -Multiples -Least common multiples -Least common denominator	**Fractions: Basics** -Write fractions using numerators and denominators -Interpret a fraction as division of the numerator by the denominator -Determine common and greatest common factors of a set of numbers -Generate equivalent fractions by writing a fraction in simplest form -Determine the common and least common multiples of a set of numbers -Compare fractions by using the least common denominator -Use fraction equivalents to write fractions as decimals	**Fractions: Basics** -Quizzes -Tests	**Fractions: Basics** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)
Fractions: Addition and Subtraction 5.NF.A	**Fractions: Addition and Subtraction** How can equivalent fractions help add and subtract fractions?	**Fractions: Addition and Subtraction** -Like fractions -Unlike fractions -Benchmark fraction -Number line -Rounding -Mixed numbers -Improper fractions -Rename	**Fractions: Addition and Subtraction** -Add and subtract like and unlike fractions using multiple methods -Use number lines and benchmark fractions to round fractions -Use number sense and benchmark fractions to estimate sums and differences -Add and subtract mixed numbers -Use fraction equivalents to subtract with renaming	**Fractions: Addition and Subtraction** -Quizzes -Tests	**Fractions: Addition and Subtraction** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)

Mathematics 5th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Fractions: Multiplication and Division 5.NF.B	**Fractions: Multiplication and Division** How are fractions multiplied and divided?	**Fractions: Multiplication and Division** -Scaling -Unit fractions -Commutative Property of Multiplication -Reciprocal	**Fractions: Multiplication and Division** -Estimate products of fractions using compatible numbers and rounding -Multiply whole numbers and fractions using different methods -Multiply fractions by fractions -Multiply using mixed numbers -Interpret multiplication of fractions as scaling -Divide whole numbers by unit fractions -Use bar diagrams to divide whole numbers by unit fractions -Use bar diagrams to divide unit fractions by whole numbers	**Fractions: Multiplication and Division** -Quizzes -Tests	**Fractions: Multiplication and Division** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)
Measurement 5.MD.A 5.MD.B 5.MD.C	**Measurement** How can measurement conversions be used to solve real world problems?	**Measurement** -Conversion -Customary system -Metric system -Line plot -Fair share -Length -Weight -Capacity -Mass -Volume	**Measurement** -Convert measurements within a given system -Make a line plot to display a set of measurements -Estimate and measure the capacity of liquids -Apply formulas to measure	**Measurement** -Quizzes -Tests	**Measurement** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)
Geometry 5.G.B	**Geometry** How is geometry used to solve real world problems?	**Geometry** -Geometric shapes -Properties -Congruent	**Geometry** -Classify two-dimensional figures based on properties	**Geometry** -Quizzes -Tests	**Geometry** -*Big Ideas Math Grade 5* by Big Ideas Learning LLC (2022)

Mathematics 6th Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Ratios and Proportional Relationships **6.RP.A:** Understand ratio concepts and use ratio reasoning to solve problems. **The Number System** **6.NS.A:** Apply and extend previous understandings of multiplication and division to divide fractions by fractions. **6.NS.B:** Compute fluently with multi-digit numbers and find common factors and multiples. **6.NS.C:** Apply and extend previous understandings of numbers to the system of rational numbers. **Expressions and Equations** **6.EE.A:** Apply and extend previous understandings of arithmetic to algebraic expressions. **6.EE.B:** Reason about and solve one-variable equations and inequalities. **6.EE.C:** Represent and analyze quantitative relationships between dependent and independent variables. **Geometry** **6.G.A:** Solve real-world and mathematical problems involving area, surface area, and volume. **Statistics and Probability** **6.SP.A:** Develop understanding of statistical variability. **6.SP.B:** Summarize and describe distributions.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, calculator, ALEKS	

Mathematics 6th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Ratios and Proportional Relationships 6.RP.A	**Ratios and Proportional Relationships** How are proportional relationships used to solve real-world and mathematical problems?	**Ratios and Proportional Relationships** -Ratios -Quantities -Equations -Number Lines -Similar figures -Indirect measure -Scale drawings, maps and diagrams -Relationships -Fraction, decimal, percent conversions -Unit rates -Tables	**Ratios and Proportional Relationships** -Understand concept of a ratio -Solve problems involving finding a whole given a part and the percent -Write ratios -Convert from fractions to decimals to percents -Create and use tables to compare ratios -Use ratios to convert measurements -Use ratio reasoning to solve real-world problems -Make tables and plot pairs of values on a coordinate plane -Identify the quadrants on a coordinate plane -Commute unit rates to determine the best value -Describe a ratio between two quantities -Find a percent of a quantity as a rate per 100	**Ratios and Proportional Relationships** -Quizzes -Tests	**Ratios and Proportional Relationships** -*Big Ideas Math Course 1* by Big Ideas Learning LLC (2014)

Mathematics 6th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
The Number System 6.NS.A 6.NS.B 6.NS.C	**The Number System** How is previous understanding of numbers applied and extended to the system of rational numbers? How are integers and rational numbers applied in the real-world?	**The Number System** -Fraction operations -Rational number operations -Common factors and multiples -Decimals -Rational numbers -Opposite signs -Absolute value -Greatest common factor -Least common multiple -Four quadrants -Ordered pairs -Inequalities -Vertical number line -X and Y axis -Origin -Real world integers -Distance between two points	**The Number System** -Interpret quotients of fractions -Divide fraction by fraction -Perform mathematical operations with fractions and decimals fluently -Find the greatest common factor or lowest common multiple of two whole numbers -Understand positive and negative numbers -Understand rational numbers as points on number lines and coordinate planes -Understand signs in ordered pairs -Show absolute value as the distance from zero -Compare inequalities -Interpret inequality as position of numbers on a number line -Write, interpret, and explain statements of order for rational numbers in real-world content -Graph in all four quadrants -Relate the use of rational numbers in real-world problems	**The Number System** -Quizzes -Tests	**The Number System** -*Big Ideas Math Course 1* by Big Ideas Learning LLC (2014)

Mathematics 6th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Expressions and Equations 6.EE.A 6.EE.B 6.EE.C	**Expressions and Equations** How are one-step equations and inequalities solved? How are solutions of equations represented on graphs?	**Expressions and Equations** -Expressions -Equations -Variables -Independent and dependent variables -Functions -Inequalities -Exponents -Properties -Order of operations -Equivalent expressions -Substitutions -Graphs and tables -Input -Output -Inverse operations -Sum, term, product, factor, quotient, and coefficient	**Expressions and Equations** -Write and evaluate numerical expressions involving whole number exponents -Write and evaluate expressions in which letters stand for numbers -Identify parts of an expression using mathematical terms -Apply the properties of operations to generate equivalent expressions -Identify when two expressions are equivalent -Apply the order of operations -Understand, solve, and write inequalities with infinite solutions -Identify independent and dependent variables in order to determine and plot ordered pairs -Identify if functions are linear or non-linear -Use variables to represent numbers and solve equations and inequalities	**Expressions and Equations** -Quizzes -Tests	**Expressions and Equations** -*Big Ideas Math Course 1* by Big Ideas Learning LLC (2014)

Mathematics 6th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Geometry 6.G.A	**Geometry** How is perimeter and area of polygons found? How is volume found? How is surface area of three-dimensional figures found?	**Geometry** -Shapes -Polygons -Area -Surface area -Volume -Formulas -Base -Height -Length -Width -Coordinate plane -Nets -Two and three-dimensional figures -Prisms -Vertices (vertex) -Edges -Plane	**Geometry** -Find the area of shapes and polygons -Find the volume of prisms -Draw polygons in a coordinate plane -Represent figures using nets -Use nets to find surface area	**Geometry** -Quizzes -Tests	**Geometry** -*Big Ideas Math Course 1* by Big Ideas Learning LLC (2014)

Mathematics 6th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Statistics and Probability 6.SP.A 6.SP.B	**Statistics and Probability** How can data be gathered? How can data be organized and displayed?	**Statistics and Probability** -Data -Center -Statistical question -Dot plot -Histogram -Box and whisker plots -Number line -Bar graph -Circle graph -Line graph -Scatter plot -Measures of central tendency: mean, median, mode, range, average -Variations -Outliers -Patterns -Quartiles -Deviation	**Statistics and Probability** -Compare the measure of central to measure of variation -Display numerical data in numerous patterns -Determine appropriate display of data -Identify the number of observations -Properly label appropriate display of data	**Statistics and Probability** -Quizzes -Tests	**Statistics and Probability** -*Big Ideas Math Course 1* by Big Ideas Learning LLC (2014)

Mathematics 7th Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Ratios and Proportional Relationships **7.RP.A:** Analyze proportional relationships and use them to solve real-world and mathematical problems. **The Number System** **7.NS.A:** Apply and extend previous understandings of operations with fractions **Expressions and Equations** **7.EE.A:** Use properties of operations to generate equivalent expressions. **7.EE.B**: Solve real-life and mathematical problems using numerical and algebraic expressions and equations. **Geometry** **7.G.A:** Draw construct, and describe geometrical figures and describe the relationships between them. **7.G.B:** Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. **Statistics and Probability** **7.SP.A:** Use random sampling to draw inferences about a population. **7.SP.B**: Draw informal comparative inferences about two populations. **7.SP.C:** Investigate chance processes and develop, use, and evaluate probability models.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, calculators, ALEKS, Educreations	

Mathematics 7th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Ratios and Proportional Relationships 7.RP.A	**Ratios and Proportional Relationships** How are proportional relationships used to solve real-world and mathematical problems?	**Ratios and Proportional Relationships** -Unit rates -Quantities -Ratios -Graphs -Diagrams -Equations -Coordinate planes -Origins -Constant	**Ratios and Proportional Relationships** -Compute unit rates -Decide whether two quantities are proportional using ratio tables and graphs -Understand difference between rate and unit rate -Graph ordered pairs on a coordinate plane -Understand ratio in terms of consumer math	**Ratios and Proportional Relationships** -Quizzes -Tests	**Ratios and Proportional Relationships** -*Big Ideas Math Course 2* by Big Ideas Learning LLC (2014)
The Number System 7.NS.A	**The Number System** How are integers applied in the real-world?	**The Number System** -Integers -Absolute value -Operations of integers -Order of operations -Rational numbers -Irrational numbers -Additive inverse	**The Number System** -Identify and represent integers -Order and compare integers -Identify and describe absolute value -Justify the rules for integers -Solve real-world and mathematical problems involving the four operations with rational numbers -Convert rational numbers to decimal numbers -Apply properties of operations as strategies to perform operations with rational numbers -Understand an integer can be divided by a non-zero number creating a quotient that is a rational number	**The Number System** -Quizzes -Tests	**The Number System** -*Big Ideas Math Course 2* by Big Ideas Learning LLC (2014)

Mathematics 7th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Expressions and Equations 7.EE.A 7.EE.B	**Expressions and Equations** How can algebraic expressions be simplified? How can rewriting an expression show how quantities are related? How are one-step and multi-step equations solved?	**Expressions and Equations** -Combining like terms -Rational coefficients -Algebraic expressions -Linear expressions -Algebraic equations -Variables -Constants -Coefficients -Terms -Inequalities	**Expressions and Equations** -Convert between forms as appropriate and assess reasonableness of answer -Use variables to represent quantities -Understand that rewriting expressions in different forms can show how quantities are related -Write, graph and solve equations -Solve and graph word problems involving inequalities -Recognize infinite solutions -Determine if a value is a solution of an inequality -Use the Distributive Property and grouping symbols to simplify expressions and equations	**Expressions and Equations** -Quizzes -Tests	**Expressions and Equations** -*Big Ideas Math Course 2* by Big Ideas Learning LLC (2014)

Mathematics 7th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Geometry 7.G.A 7.G.B	**Geometry** How are geometric figures drawn, constructed, and describe? How are geometric figures related? How can types of angles be used to find an unknown measure? How is perimeter and area of polygons found? How is circumference and area of circles found? How is surface area of three-dimensional figures found?	**Geometry** -Area -Perimeter -Circumference -Radius -Diameter -Supplementary -Complimentary -Obtuse angle -Acute angle -Straight angle -Right angle -Polygon -Prism -Volume -Surface area -Perpendicular lines -Parallel lines -Intersecting lines -Vertical angles -Adjacent angles -Corresponding -Alternate, interior and exterior angles -Congruency -Transversal lines -Types of triangles -Regular and irregular polygons -Quadrilaterals -Parts of a circle -Formulas for area and volume or geometric shapes -Scale drawings	**Geometry** -Classify and measure all types of angles -Use types of angles to find an unknown measure -Recognize different shapes when sliced -Use geometric vocabulary -Find the value of surface area, volume, perimeter and area of geometric shapes -Know and use all formulas for geometric shapes -Solve simple equations for an unknown angle -Draw geometric shapes with given conditions -Find interior and exterior angles of triangles	**Geometry** -Quizzes -Tests	**Geometry** -*Big Ideas Math Course 2* by Big Ideas Learning LLC (2014)

Mathematics 7th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Statistics and Probability 7.SP.A 7.SP.B	**Statistics and Probability** How are statistics used to gain information about a population? How are data sets of two populations compared?	**Statistics and Probability** -Random sample -Populations -Variabilities -Numerical data -Experimental probability -Theoretical probability -Generalizations -Comparative inferences -Mean absolute deviation -Dot plot	**Statistics and Probability** -Understand that statistics can be used to understand information about a population -Find the probability of compound events -Use random samples to draw inferences about populations	**Statistics and Probability** -Quizzes -Tests	**Statistics and Probability** *-Big Ideas Math Course 2 by Big Ideas Learning LLC (2014)*
Statistics and Probability 7.SP.C	**Statistics and Probability** How can the likelihood of an event be predicted using probability models? How can the likelihood of a future event be determined?	**Statistics and Probability** -Chance events -Probability model -Uniform probability -Relative frequency -Sample space -Unbiased and biased sample -Simulation -Dependent, independent and compound events -Lists, tables, and tree diagrams	**Statistics and Probability** -Understand the likelihood of an event occurring -Develop probability models to find the likelihood of an event -Compare probabilities from a model to observe frequencies -Identify the outcomes in a sample space -Find probability using sample spaces -Create organized lists, tables, and tree diagrams -Approximate probability of a chance event -Design and use simulation to generate frequencies for compound events	**Statistics and Probability** -Quizzes -Tests	**Statistics and Probability** *-Big Ideas Math Course 2 by Big Ideas Learning LLC (2014)*

Mathematics 8th Grade

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
The Number System **8.NS.A:** Know that there are numbers that are not rational, and approximate them by rational numbers. **Expressions and Equations** **8.EE.A:** Work with radicals and integer exponents. **8.EE.B:** Understand the connections between proportional relationships, lines, and linear equations. **8.EE.C:** Analyze and solve linear equations and pairs of simultaneous linear equations. **Functions** **8.F.A:** Define, evaluate, and compare functions. **8.F.B:** Use functions to model relationships between quantities. **Geometry** **8.G.A:** Understand congruence and similarity using physical models, transparencies, or geometry software. **8.G.B:** Understand and apply the Pythagorean Theorem. **8.G.C:** Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. **Statistics and Probability** **8.SP.A:** Investigate patterns of association in bivariate data.	**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. ***** Mathematical Practices are incorporated within all units.
Technology	
Elmo, SMART Board, iPads, calculators, ALEKS, Educreations	

Mathematics 8th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
The Number System 8.NS.A	**The Number System** What makes a number rational or irrational? How to locate and apply rational and irrational numbers?	**The Number System** -Integers and operations -Rational and irrational -Approximation of rational and irrational numbers (square root) -Pythagorean Theorem -Coordinate plane	**The Number System** -Apply integer rules and order of operations -Identify rational and irrational numbers -Understand and locate rational and irrational numbers on a number line -Solve square and cube roots -Understand the basic concepts of the Pythagorean Theorem -Understand placement of X/Y coordinates	**The Number System** -Quizzes -Tests	**The Number System** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)
Expressions and Equations: Radical and Integer Exponents 8.EE.A	**Expressions and Equations: Radical and Integer Exponents** How are multi-step equations solved and applied? How is scientific notation applied?	**Expressions and Equations: Radical and Integer Exponents** -Exponents -Expressions and variables -Distributive Property -Solving equations -Multi-step equations -Scientific notation	**Expressions and Equations: Radical and Integer Exponents** -Evaluate and write variable expressions -Apply properties of integer exponents -Apply Distributive Property to evaluate expressions and solve equations -Define multi-step properties in equations -Perform operations with numbers in scientific notation	**Expressions and Equations: Radical and Integer Exponents** -Quizzes -Tests	**Expressions and Equations: Radical and Integer Exponents** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)

Mathematics 8th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Expressions and Equations: Linear Equations 8.EE.B 8.EE.C	**Expressions and Equations: Linear Equations** How do you find and apply the slope of a line using rise and run?	**Expressions and Equations: Linear Equations** -Graphing with a slope -y = mx -One variable equations -Coefficients -Two linear equations with two variables	**Expressions and Equations: Linear Equations** -Find the slope of a line -Apply slope -Expand expressions and collect like terms -Understand two linear equations -Solve a system of two linear equations -Apply knowledge in real world problems	**Expressions and Equations: Linear Equations** -Quizzes -Tests	**Expressions and Equations: Linear Equations** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)
Functions 8.F.A 8.F.B	**Functions** How are linear and non-linear functions graphed?	**Functions** -Basic rules -Properties of functions -Linear and non-linear -Rate of change -Graph analyzation	**Functions** -Understand the definition of a function -Construct a function -Compare and write functions in a variety of ways -Interpret the rate of change and initial value of a function -Sketch a graph of a function	**Functions** -Quizzes -Tests	**Functions** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)
Geometry: Congruence and Similarity 8.G.A	**Geometry: Congruence and Similarity** How are transformation properties applied? How are angles created using a transversal through parallel lines? How are proportions used to find measurement?	**Geometry: Congruence and Similarity** -Geometric vocabulary -Rotations, reflections and translations -Congruent and similar -Interior and exterior angle relationships -Proportions -Indirect measurement -Two dimensional figures	**Geometry: Congruence and Similarity** -Apply geometric vocabulary -Find the measure of angles formed by different types of lines -Describe the effect of dilations, translations, rotations, and reflections using coordinates -Find the sum of interior and exterior angle measures -Use proportions to find indirect measurement	**Geometry: Congruence and Similarity** -Quizzes -Tests -Flashcards	**Geometry: Congruence and Similarity** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)

Mathematics 8th Grade

Standards	Essential Questions	Content	Skills	Assessment	Resources
Geometry: Pythagorean Theorem 8.G.B	**Geometry: Pythagorean Theorem** How is the Pythagorean Theorem used in real life?	**Geometry: Pythagorean Theorem** -Proof of Pythagorean Theorem and its converse	**Geometry: Pythagorean Theorem** -Determine unknown side lengths of a right triangle -Identify the distance between two points in a coordinate system	**Geometry: Pythagorean Theorem** -Quizzes -Tests -Flashcards	**Geometry: Pythagorean Theorem** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)
Geometry: Volume and Area 8.G.C	**Geometry: Volume and Area** How are solids identified by shapes, size, and nets? How is surface area and volume of three dimensional figures determined?	**Geometry: Volume and Area** -Volume -Cones, cylinders, spheres, and prisms -Surface area	**Geometry: Volume and Area** -Identify parts of solids -Identify types of solids with different bases -Use nets to determine surface area -Know and use the formulas for finding volume and surface area	**Geometry: Volume and Area** -Quizzes -Tests -Flashcards	**Geometry: Volume and Area** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)
Statistics and Probability 8.SP.A	**Statistics and Probability** How can you predict future events based on a scatter plot? How can you construct a scatter plot based on bivariate data?	**Statistics and Probability** -Scatter plots -Outliers -Linear and nonlinear association -Positive and negative association -Clustering -Quantitative variables -Bivariate data -Frequency tables	**Statistics and Probability** -Construct and interpret scatter plots -Describe patterns of graphs/plots -Know that straight lines are used to model relationships between quantitative variables -Understand the relationship between two bivariate data sets -Construct and interpret a two-way table	**Statistics and Probability** -Quizzes -Tests	**Statistics and Probability** -*Big Ideas Math Course 3* by Big Ideas Learning LLC (2014) -*Larson Pre-Algebra* by Houghton Mifflin Harcourt (2012)

Mathematics Kindergarten

Common Core Standards for Mathematics	
Content Standards	**Mathematical Practices**
Counting and Cardinality **K.CC.A:** Know number names and the count sequence. **K.CC.B:** Count to tell the number of objects. **K.CC.C:** Compare numbers. **Operations and Algebraic Thinking** **K.OA.A:** Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. **Number and Operations in Base Ten** **K.NBT.A:** Work with numbers 11-19 to gain foundations for place value. **Measurement and Data** **K.MD.A:** Describe and compare measurable attributes. **K.MD.B:** Classify objects and count the number of objects in each category. **Geometry** **K.G.A:** Identify and describe shapes. **K.G.B:** Analyze, compare, create, and compose shapes.	**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. * Mathematical Practices are incorporated within all units.

Technology
SMART Board, Elmo, laptop, iPads

Standards	Essential Questions	Content	Skills	Assessment	Resources
Numbers 0-10 K.CC.A K.CC.B K.CC.C	**Numbers 0-10** How can numbers 0-10 be counted, written, modeled, and identified?	**Numbers 0-10** -Count -Write -Model -Identify -Compare -Order	**Numbers 0-10** -Count, write, model and identify numbers 0-10 -Compare numbers 0-10 -Order numbers 0-10	**Numbers 0-10** -Teacher observation -1:1 assessment	**Numbers 0-10** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials

Mathematics Kindergarten

Standards	Essential Questions	Content	Skills	Assessment	Resources
Numbers 11-20 K.CC.A K.CC.B K.CC.C K.NBT.A	**Numbers 11-20** How can numbers 11-20 be counted, written, modeled, and identified?	**Numbers 11-20** -Count -Write -Model -Identify -Compare -Order	**Numbers 11-20** -Count, write, model and identify numbers 11-20 -Compare numbers 11-20 -Order numbers 11-20	**Numbers 11-20** -Teacher observation -1:1 assessment	**Numbers 11-20** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials
Numbers Beyond 20 K.CC.A K.CC.B K.CC.C	**Numbers Beyond 20** How can numbers beyond 20 be counted, written, modeled, and identified?	**Numbers Beyond 20** -Count -Write -Model -Identify -Compare -Order	**Numbers Beyond 20** -Count, write, model and identify numbers beyond 20 -Compare numbers beyond 20 -Order numbers beyond 20 -Count by ones and tens -Count forward from any given number -Find numbers before, after, and in between	**Numbers Beyond 20** -Teacher observation -1:1 assessment	**Numbers Beyond 20** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials
Shapes and Patterns K.G.A K.G.B	**Shapes and Patterns** How are two dimensional and three dimensional shapes identified, named and described?	**Shapes and Patterns** -Two dimensional shapes: squares, circles, triangles, rectangles, and hexagons -Three dimensional shapes: cubes, cones, cylinders, and spheres -Vertices -Sides -Patterns -Positional words	**Shapes and Patterns** -Name shapes -Model shapes -Compare and group shapes by attributes -Identify and make patterns with shapes -Identify position of an object -Use shapes to make other shapes -Describe shapes in the environment	**Shapes and Patterns** -Teacher observation -1:1 assessment	**Shapes and Patterns** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials
Addition K.OA.A	**Addition** How can numbers and symbols be used to show addition?	**Addition** -Write -Compose	**Addition** -Add within five fluently -Represent and solve an addition problem using objects or drawings	**Addition** -Teacher observation -1:1 assessment	**Addition** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials

Mathematics Kindergarten

Standards	Essential Questions	Content	Skills	Assessment	Resources
Subtraction K.OA.A	**Subtraction** How can numbers and symbols be used to show subtraction?	**Subtraction** -Write -Decompose	**Subtraction** -Subtract within five fluently -Represent and solve a subtraction problem using objects or drawings	**Subtraction** -Teacher observation -1:1 assessment	**Subtraction** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials
Measurement and Data K.MD.A K.MD.B	**Measurement and Data** How are objects described and compared by length, height, and weight?	**Measurement and Data** -Non-standard measurements -Compare -Classify	**Measurement and Data** -Use non-standard measurements to describe and object -Compare length, height, and weight -Classify objects by color, shape, size, and count	**Measurement and Data** -Teacher observation -1:1 assessment	**Measurement and Data** -*Kindergarten Math Made Fun* by Moffatt Girls (Teachers Pay Teachers) -Manipulatives -Teacher created materials

Mathematics PreKindergarten 3

Illinois Early Learning and Development Standards
6.A Demonstrate beginning understanding of numbers, number names, and numerals
6.B Add and subtract to create new numbers and begin to construct sets
6.C Begin to make reasonable estimates of numbers
6.D Compare quantities using appropriate vocabulary terms
7.A Measure objects and quantities using direct comparison methods and nonstandard units
7.B Begin to make estimates of measurements
7.C Explore tools used for measurement
8.A Explore objects and patterns
8.B Describe and document patterns using symbols
9.A Recognize, name, and match common shapes
9.B Demonstrate an understanding of location and ordinal position, using appropriate vocabulary
10.A Generate questions and processes for answering them
10.B Organize and describe data and information
10.C Determine, describe, and apply the probabilities of events
The map is a guide. Adjustments are made daily to meet the widespread needs of the students. **Every child may not reach the benchmarks by the end of the year. Growth, instead of mastery, is assessed.**

Technology					
SMART Board					
Standards	**Essential Questions**	**Content**	**Skills**	**Assessment**	**Resources**
Number Sense 6A 6B	**Number Sense** What are numbers?	**Number Sense** -Count objects 0-10 -Subitize introduction 0-6 -Zero -Number sets and values 0-10 -Differentiate numbers and letters -Rote count 0-10 -Counting on 0-10 -Counting back 0-10	**Number Sense** -Demonstrate counting objects 0-10 -Recognize how many without counting -Explain that zero means nothing -Practice, show, match, and build number sets -Begin to differentiate between numbers and letters -Count out loud -Tell the number that comes next -Tell the number that comes before	**Number Sense** -Teacher observation -Worksheets -Class discussion	**Number Sense** -Manipulatives -Games -Charts -Graphs

Mathematics PreKindergarten 3

Standards	Essential Questions	Content	Skills	Assessment	Resources
Measurement 7A 7B 7C	**Measurement** What is measurement?	**Measurement** -Sort and classify -Nonstandard units -Standard units -Tools -Compare -Time	**Measurement** -Separate objects by attribute -Use nonstandard units to measure -Use measurement tools -Use vocabulary/tools to describe and compare measurements -Know the daily schedule	**Measurement** -Teacher observation -Worksheets -Class discussion	**Measurement** -Manipulatives -Games -Charts -Graphs
Patterns 8A 8B	**Patterns** What are patterns?	**Patterns** -Sort -Order -Compare -Label	**Patterns** -Recognize, duplicate, extend, create, and explain patterns	**Patterns** -Teacher observation -Worksheets -Class discussion	**Patterns** -Manipulatives -Games -Charts -Graphs
Geometry 9A	**Geometry** What are shapes?	**Geometry** -Shapes: 2D	**Geometry** -Recognize and name shapes	**Geometry** -Teacher observation -Worksheets -Class discussion	**Geometry** -Manipulatives -Games -Charts -Graphs
Geometry 9B	**Geometry** How is location described?	**Geometry** -Location -Ordinal position	**Geometry** -Use positional words to identify location	**Geometry** -Teacher observation -Worksheets -Class discussion	**Geometry** -Manipulatives -Games -Charts -Graphs
Data 10A	**Data** How is information collected and interpreted?	**Data** -Question -Predict	**Data** -Ask questions -Predict the outcomes	**Data** -Teacher observation -Worksheets -Class discussion	**Data** -Manipulatives -Games -Charts -Graphs

Mathematics PreKindergarten 4

Illinois Early Learning and Development Standards
6.A Demonstrate beginning understanding of numbers, number names, and numerals
6.B Add and subtract to create new numbers and begin to construct sets
6.C Begin to make reasonable estimates of numbers
6.D Compare quantities using appropriate vocabulary terms
7.A Measure objects and quantities using direct comparison methods and nonstandard units
7.B Begin to make estimates of measurements
7.C Explore tools used for measurement
8.A Explore objects and patterns
8.B Describe and document patterns using symbols
9.A Recognize, name, and match common shapes
9.B Demonstrate an understanding of location and ordinal position, using appropriate vocabulary
10.A Generate questions and processes for answering them
10.B Organize and describe data and information
10.C Determine, describe, and apply the probabilities of events
The map is a guide. Adjustments are made daily to meet the widespread needs of the students. **Every child may not reach the benchmarks by the end of the year. Growth, instead of mastery, is assessed.**

Technology					
SMART Board					
Standards	**Essential Questions**	**Content**	**Skills**	**Assessment**	**Resources**
Number Sense 6A 6B 6C	**Number Sense** What are numbers?	**Number Sense** -Count objects 0-20 -Subitize 0-6 -Zero -Number sets and values 0-20 -Numbers and letters -Rote count 0-20 -Counting on 0-20 -Counting back 0-20 -Estimate	**Number Sense** -Demonstrate counting objects 0-20 -Identify quantity visually without counting -Explain that zero means nothing -Practice, show, match, and build number sets -Differentiate between numbers and letters -Count out loud -Tell the number that comes next -Tell the number that comes before -Make reasonable numerical guesses	**Number Sense** -Teacher observation -Worksheets -Class discussion -Portfolio	**Number Sense** -Manipulatives -Games -Charts -Graphs

Mathematics PreKindergarten 4

Standards	Essential Questions	Content	Skills	Assessment	Resources
Addition and Subtraction 6B 6D	**Addition and Subtraction** How are numbers combined and separated?	**Addition and Subtraction** -Combinations -Separation -Equal -Compare	**Addition and Subtraction** -Discover, identify, and solve number combinations and separations -Use vocabulary: more, less, greater than, fewer, equal to, same as	**Addition and Subtraction** -Teacher observation -Worksheets -Class discussion -Portfolio	**Addition and Subtraction** -Manipulatives -Games -Charts -Graphs
Measurement 7A 7B 7C	**Measurement** What is measurement?	**Measurement** -Sort and classify -Nonstandard units -Standard units -Tools -Compare -Time	**Measurement** -Separate objects by attribute -Use nonstandard units to measure -Use measurement tools -Use vocabulary/tools to describe and compare measurements -Know the daily schedule	**Measurement** -Teacher observation -Worksheets -Class discussion -Portfolio	**Measurement** -Manipulatives -Games -Charts -Graphs
Patterns 8A 8B	**Patterns** What are patterns?	**Patterns** -Sort -Order -Compare -Label	**Patterns** -Recognize, duplicate, extend, create, and explain patterns	**Patterns** -Teacher observation -Worksheets -Class discussion -Portfolio	**Patterns** -Manipulatives -Games -Charts -Graphs
Geometry 9A	**Geometry** What are shapes?	**Geometry** -Shapes: 2D and 3D -Sort -Rotate and flip	**Geometry** -Recognize and name shapes -Combine two-dimensional shapes to create a new shape -Describe and sort shapes -Rotate and flip a shape to change how it looks	**Geometry** -Teacher observation -Worksheets -Class discussion -Portfolio	**Geometry** -Manipulatives -Games -Charts -Graphs
Geometry 9B	**Geometry** How is location described?	**Geometry** -Location -Ordinal position	**Geometry** -Use positional words to identify location	**Geometry** -Teacher observation -Worksheets -Class discussion -Portfolio	**Geometry** -Manipulatives -Games -Charts -Graphs

Mathematics PreKindergarten 4

Standards	Essential Questions	Content	Skills	Assessment	Resources
Data 10A 10B 10C	**Data** How is information collected and interpreted?	**Data** -Question -Predict -Collect data -Organize data -Analyze data -Probability	**Data** -Ask questions -Predict the outcomes -Collect data -Organize data using concrete objects, pictures, and graphs -Interpret data -Discuss likelihood of events using vocabulary such as possible and impossible	**Data** -Teacher observation -Worksheets -Class discussion -Portfolio	**Data** -Manipulatives -Games -Charts -Graphs