

**PUBLIC SCHOOLS OF EDISON TOWNSHIP
OFFICE OF CURRICULUM AND INSTRUCTION**

Course Name: Learning/Language Disabilities: Math

Length of Course:	Full Year
Elective/Required:	Required
Schools:	High Schools
Eligibility:	Special Education Students Grades 9-12
Credit Value: (High School Only)	5 credits/year
Date Approved:	August 22, 2016

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Statement of Purpose

This course of study has been designed for students enrolled in the Learning/Language Disabilities program. The LLD math curriculum is a general high school math curriculum that will provide students with instruction for four consecutive years. The curriculum was written in coordination with the common core state standards, specifically standards from Pre-Algebra and Algebra standards and concepts. The curriculum contains topics for several different areas of math including, but not limited to, algebra, geometry, consumer math, banking, life skills and job skills. The topics are covered in a logical order that allows the students' knowledge to build upon itself. The curriculum will meet the needs of all students in the class while teaching them both basic mathematical concepts as well as life skills involving mathematics.

Course Objectives

The student will be able to:

- Use mathematical properties to simplify variable expressions
- Solve equations
- Identify equivalent fractions
- Perform operations with integers, decimals, and fractions
- Tell time elapsed using an analog and digital clocks
- Use cash in everyday situations; make change
- Build on money skills and understand basics of a checking/saving account
- Make withdraws and deposits
- Understand how a credit/debit card works
- Keep a monthly budget
- Use a map and apply navigational skills
- Understand basics of fractions and how they are used in everyday math
- Measure objects using various methods and tools and apply this to calculate area, perimeter and volume
- Compare and contrast gross and net income
- Calculate an appropriate tip using a variety of percent-solving methods
- Apply discounts to purchases

Timeline

Grade 9 will master units 1 through 3.

Grade 10 will master units 4 through 6.

Grades 11 and 12 will master units 7 through 12.

Unit 1: Integers, Expressions, and Equations

Targeted State Standards: **HS-** Number Quantity; **HS-** Seeing Structure in Expressions; **HS** Number and Quantity; **8 EE-** Expressions and Equations; **7. EE-** Expressions and Equations; **7.NS** – Number Sense; **6.EE** – Expressions and Equations; **4.OA** – Operations and Algebraic Thinking

Unit Objectives/Enduring Understandings: Students will be able to write algebraic expressions and equations from a worded statement. Students will be able to solve expressions and equations in real-world situations.

Essential Questions: How are algebraic expressions and equations used in real life and how do we solve them?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<p>HSN.Q.A.2- Define appropriate quantities for the purpose of descriptive modeling.</p> <p>HAS.SSE.B.3- Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <p>8.EE.C.7- Solve linear equations in one variable.</p>	<ul style="list-style-type: none"> Key Terms: Expression, equation, sum, difference, product, quotient, equals, integers, expression, negative, positive, operation, parenthesis, order of operations, additive inverse, opposite, number line Inverse operation Using a number line Using a multiplication table Equations can be used to solve real life problems 	<ul style="list-style-type: none"> Add, subtract, multiply, and divide positive and negative numbers Use numbers and variables to represent real-life situations Locate negative and positive numbers on a number line. Place numbers in order from smallest to largest in real-life contexts (ie. penny < nickel < dime < quarter) 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Real World Applications-using opposite operations to solve in scenarios outside that math classroom 	<ul style="list-style-type: none"> Teacher made quizzes/ tests Unit tests Exit tickets Performance Assessments Use opposite operations in everyday situations to solve for an unknown variable

Unit 1: Integers, Expressions, and Equations (cont.)

<p>8.EE.C. 7.A- Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).</p> <p>8.EE.C. 7.B- Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.</p> <p>7. EE. B. 3- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p> <p>7.EE.B.4- Use variables to represent quantities in a real-world or</p>		<ul style="list-style-type: none"> ● Be able to properly use $<$, $>$, and $=$ ● Combine positive and negative numbers. ● Define the rules for multiplying positive and negative numbers. ● Simplify expressions using addition, subtraction, multiplication, and division ● Solve one step equations using addition, subtraction, multiplication, and division ● Use expressions and equations to model real life problems ● Understand what the parts of an equation stand for/represent in a real-world context. ● Create equations in everyday math situations 		
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Unit 1: Integers, Expressions, and Equations (cont.)

<p>mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities</p> <p>7.NS.A.1-Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</p> <p>7.NS.A.1A- Describe situations in which opposite quantities combine to make 0. <i>For example, a hydrogen atom has a 0 charge because its two constituents are oppositely charged.</i></p> <p>7.NS.A.1B- Understand $p + q$ as the number located a distance (q) from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.</p> <p>7.NS.A.1C- Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show</p>				
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Unit 1: Integers, Expressions, and Equations (cont.)

<p>that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.</p> <p>7.NS.A.1D- Apply properties of operations as strategies to add and subtract rational numbers.</p> <p>7.NS.A.2- Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <p>7.NS.A.2A- Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.</p> <p>7.NS.A.2B- Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then</p>				
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Unit 1: Integers, Expressions, and Equations (cont.)

<p>$-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.</p> <p>7.NS.A.2C Apply properties of operations as strategies to multiply and divide rational numbers.</p> <p>7.NS.A.3- Solve real-world and mathematical problems involving the four operations with rational numbers.¹</p> <p>6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as</p>				
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Unit 1: Integers, Expressions, and Equations (cont.)

<p>many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.</p> <p>4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</p>				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Teacher made worksheets and assessments, iPad app resources, online resources</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 2: Money

Targeted State Standards: 7EE- Expressions and Equations; 1MD. -Measurement and Data; 2MD. -Measurement and Data; 4MD-. Measurement and Data; 6EE Expressions and Equations; 21st Century Life and Careers

Unit Objectives/Enduring Understandings: Students will be able to identify coin value and use this knowledge to calculate totals and make change. Students will apply this knowledge of money to everyday life skills.

Essential Questions: How will knowledge of money assist in everyday situations?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<p>9.1.4.D.1 Determine ways to save</p> <p>9.1.12.A.8 Analyze different forms of currency and how currency is used to exchange goods and services.</p> <p>9.1.12.B.1 Prioritize financial decisions by systematically considering alternatives and possible consequences.</p> <p>9.1.12.B.6 Design and utilize a simulated budget to monitor progress of financial plans.</p>	<ul style="list-style-type: none"> Key Terms: coin and bills, monetary value, total, change back. 	<ul style="list-style-type: none"> Identify the fronts and backs of coins and bills and associate each with a monetary value in both cents and dollars. Use the dollar and cent symbols appropriately with decimals if needed. Calculate totals given <ol style="list-style-type: none"> pictorial representations of coins and bills actual or play bills and coins written amounts of dollars and cents 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Use register to practice making totals and counting change Use real/play money in groups 	<ul style="list-style-type: none"> Teacher made quizzes/ tests Unit tests Exit tickets Performance Assessments Apply money skills in the Supermarket. Make decisions in real-world situations regarding money including, but not limited to:

Unit 2: Money (cont.)

<p>HSA.SSE.A.1-Interpret expressions that represent a quantity in terms of its context.</p> <p>7.EE.B. 3- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p> <p>7.EE.B.4- Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities</p> <p>6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p>		<ul style="list-style-type: none"> • Estimate totals using approximation • Make change using a register, calculator, mental math or pencil and/or paper • Ordering from a menu and estimating a total and predict change back, if any. • Making purchases on a budget. 		<ul style="list-style-type: none"> -simulating a restaurant scenario using play money -using register at Java Lounge -creating a 'wish list' and seeing if it fits a budget
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Unit 2: Money (cont.)

<p>4.MD.A.3 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measure scale.</p> <p>2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols approximately.</p>				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Teacher made worksheets and assessments, iPad app resources, online resources</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 3: Time

Targeted State Standards: HS- Algebra; 7-EE Expressions and Equations; 1 MD- Measurement and Data; 2MD Measurement and Data; 6 EE- Expressions and Equations

Unit Objectives/Enduring Understandings: Students will be able to tell time using an analog and digit clock. Students will be able to calculate time elapsed and convert from minutes to hours.

Essential Questions: How are algebraic expressions and equations used when calculating time elapsed and how do we solve them?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<p>HSA.SSE.A.1-Interpret expressions that represent a quantity in terms of its context.</p> <p>7.EE.B. 3- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p>	<ul style="list-style-type: none"> Key Terms: hour hand; minute hand, second hand, analog clock, digital time Elapsed time How to use a time line 'equations' involving time elapsed 	<ul style="list-style-type: none"> Tell time using an analog and a digit clock Use terms including 'quarter past' 'quarter to' and half past' when telling time Telling time elapsed given two analog clocks, given two digital times or a combination of the two. Convert from minutes to hours and hours to minutes Solve word problems that model real life situations Understand that 30 minutes is a half hour, etc. (equivalent fractions) 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Determine daily schedule based on time elapsed Plan a day in a theme park based on ride wait times Use Judy clocks Plan to see a movie using a local bus route (I.E. if our movie starts at 	<ul style="list-style-type: none"> Teacher made quizzes/ tests Unit tests Exit tickets Performance Assessments Word problems such as: If your wait time for a roller coaster is 80 minutes and you get on line at 2:00 when will you ride? Students will create a schedule for the

Unit 3: Time (cont.)

<p>7.EE.B.4- Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.</p> <p>6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>2.MD.C.7 Tell and write time from an analog clock and digital clock to the nearest five minutes, using a.m and p.m.</p> <p>1.MD.B.3 Tell and write time in hours and half hours using analog and digital clocks.</p>		<ul style="list-style-type: none"> • Understand that a time elapsed problem can be interpreted as an equation whose variable can be solved. • Understand that the time zones exist and they do not alter time elapsed but will alter arrival and departure time 	<p>3:20 and has a running time of 120 minutes, when has the movie concluded? Is there a bus around that time?)</p> <ul style="list-style-type: none"> • Plan a day in a theme park given a schedule of shows and wait-times for rides. 	<p>day in the theme park given a list of wait times; students will also be asked to calculate the budget for the day as review of money skills including purchasing tickets, lunch, and taxable items.</p>
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Teacher made worksheets and assessments, iPad app resources, online resources</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 4: Navigational Skills

Targeted State Standards: 21st Century Life and Career; 7EE- Expressions and Equations

Unit Objectives/Enduring Understandings: Students will be able to use navigational skills to get around. Students will use GPS and maps to estimate distances and to use to travel.

Essential Questions: How can a map assist in traveling?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<p>9.3.HT-TT.2 Apply unit and time conversion skills to develop travel schedules and compute cost, distance and time (including travel time) factors.</p> <p>9.3.HT-TT.7 Customize travel with diverse transportation, lodging, cruise and food options.</p> <p>7.EE.B. 3- Solve multi-step real-life and mathematical problems posed with positive</p>	<p>Key Terms: schedule, time elapsed, arrival and departure times, miles per hour, time zones.</p>	<ul style="list-style-type: none"> • Use a bus schedule • Read arrival and departure times • Use a GPS • Use a map • Estimate distances on a map using the legend or key of the map • Using a table of arrival and departure times to determine an appropriate schedule • Understand that the time zones exist and they do not alter time elapsed 	<ul style="list-style-type: none"> • iPad applications • Grouping • Differentiated Activities • Modeling • Applications • Use a local bus schedule • Use a map to estimate distances • Plan a route using a map • Create a schedule based on a bus or train schedule 	<ul style="list-style-type: none"> • Teacher made quizzes/ tests • Unit tests • Exit tickets • Performance Assessments • Plan a day activity of going to a movie using a bus schedule and using movie times to prepare when to take the bus

Unit 4: Navigational Skills (cont.)

<p>and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p>		<p>but will alter arrival and departure time</p> <ul style="list-style-type: none"> • Understand various methods of transportations 	<ul style="list-style-type: none"> • Plan a vacation based and determine how to travel to and from that location. AS an extension, calculate the traveling cost of the trip 	
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Teacher made worksheets and assessments, iPad app resources, online resources</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 5: Measurement

Targeted State Standards: **HS-** Number Quantity; **HS-** Geometry; **8.G-** Geometry; **7.G-** Geometry; **7.EE-** Expressions and Equations; **4.MD –** Measurement and Data, **5.G –** Graphing; 5.MD- Measurement

Unit Objectives/Enduring Understandings: Students will be able to measure an object using an array of different units. Students will be able to convert units. Students will calculate perimeter, area and volume of objects.

Essential Questions: How can we measure using different units?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<p>HSN. Q. A.2- Define appropriate quantities for the purpose of descriptive modeling.</p> <p>HSN. Q. A.3- Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>HSG.MG.A1- Use geometric shapes, their measures, and their properties to describe objects</p> <p>HSG.GMD.A.3- Use volume formulas for cylinders,</p>	<ul style="list-style-type: none"> • Measurement units (km, m; kg, g; lb, oz; L, mL; hrs, min, sec) • The formula for perimeter, area, and volume of objects • How to use a ruler, yard stick, or other tools to measure length • How to use a measuring cup, tablespoon, teaspoon, etc. to measure capacity. • Which tools we use to measure length, weight, height, capacity, temperature, etc. • Appropriate units 	<ul style="list-style-type: none"> • Compare the different units within the same system of measurement (e.g. 1 ft = 12 in; 1 lb = 16 oz) • Use/read various tools including but not limited to measuring cup (dry and liquid), ruler, yard stick, thermometer (Celsius and Fahrenheit), scale. • Measure objects using a tool such as a ruler (metric and standard) • Approximate lengths and 	<ul style="list-style-type: none"> • iPad application • Grouping • Differentiated activities • Modeling • Applications • Measurement of items in the classroom will allow students to calculate actual area, perimeter, and volume of items. • Estimate area of 	<ul style="list-style-type: none"> • Teacher made quizzes/ tests • Unit tests • Exit tickets • Performance • Assessments

Unit 5: Measurement (cont.)

<p>pyramids, cones, and spheres to solve problems.</p> <p>8. G. C. 9- Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.</p> <p>7. G. B. 4- Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p> <p>7.G.A. 2- Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.</p> <p>7.G.A. 3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.</p> <p>7.G.B.4- Know the formulas for</p>	<ul style="list-style-type: none"> • Abbreviations for units 	<p>heights of objects (ie. A pencil is 7 cm whereas a giraffe is 7 feet and a building is 70 feet)</p> <ul style="list-style-type: none"> • Determine how many cups are in a pint; pints in a gallon; ounces in a cup; etc. • Approximate measurements; check for reasonableness • Determine if ounces or gallons is an approximate unit of measurement. • Apply the formula for perimeter to solve real world problems. • Apply the formula for area to solve real world and mathematical problems. • Solve area, perimeter, and volume problems in which there is an unknown factor (n). 	<p>Items</p> <ul style="list-style-type: none"> • Measure rooms and larger objects around the school to find area and perimeter; use estimation to predict larger areas and perimeters. 	
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Unit 5: Measurement (cont.)

<p>the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.</p> <p>7.G.B.6-Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p> <p>7.NS.A.2- Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <p>7.EE.B. 3- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p> <p>5.MD.C.3- Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p>				
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Unit 5: Measurement (cont.)

<p>4.MD.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.</p> <p>4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problem.</p>				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices, Teacher made worksheets, online resources and iPad applications</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> ▪ Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. ▪ Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. ▪ Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 6: Fractions

Targeted State Standards: **HSNQ**- Number Quantity; **HSASSE**- Seeing Structure in Expressions; **7NS**- Number Sense; **7EE**- Expressions and Equations; **6EE** Expressions and Equations; **5NF** Number Operations- Fractions; **4NF** Number and Operations- Fractions

Unit Objectives/Enduring Understandings: Students will be able to identify coin value and use this knowledge to calculate totals and make change. Students will apply this knowledge of money to everyday life skills.

Essential Questions: How will knowledge of fractions assist in everyday situations? Where do fractions exist in real-world contexts?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<p>HSN. Q. A.2- Define appropriate quantities for the purpose of descriptive modeling.</p> <p>HSN. Q. A.3- Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.</p> <p>HSA.SSE.A.1- Interpret expressions that represent a quantity in terms of its context</p> <p>7.EE.B. 3- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in</p>	<ul style="list-style-type: none"> Key Terms: operations, numerator, denominator, like denominators, common multiple, least common multiple 	<ul style="list-style-type: none"> Identify the parts of a fraction. Add fractions Subtract fractions Multiply fractions; ‘double fractions’ and ‘triple fractions’ Divide fractions; ‘half fractions’ 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Double a recipe; cutting a recipe in half; tripling a recipe Add lengths to calculate the whole length of an object Cutting a pie evenly using estimation Split a bill evenly 	<ul style="list-style-type: none"> Teacher made quizzes/ tests Exit tickets Performance Assessments Apply fraction skills to everyday math including but not limited to: <ul style="list-style-type: none"> -adjusting a recipe manipulating ingredient amount with fraction operation -estimate total lengths/ distances

Unit 6: Fractions (cont.)

<p>any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation</p> <p>7.EE.B.4- Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities</p> <p>7.NS.2- Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.</p> <p>7.NS.3- Solve real-world and mathematical problems involving the four operations with rational numbers.</p> <p>7.EE.B. 3- Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to</p>				<p>using fraction operation</p> <ul style="list-style-type: none"> - telling time - make purchases (i.e. 'half off') • Make decisions in real-world situations regarding fractions
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Unit 6: Fractions (cont.)

<p>calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p> <p>7.EE.B.4- Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities</p> <p>6.EE.2 Write, read, and evaluate expressions in which letters stand for numbers.</p> <p>6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>5 NF A 1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to</p>				
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Unit 6: Fractions (cont.)

<p>produce an equivalent sum or difference of fractions with like denominators.</p> <p>5 NF A 2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.</p> <p>5 NF. B 3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>5 NF. B 4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction</p> <p>5 NF. B 6 Solve real world problems involving multiplication of fractions and</p>				
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Unit 6: Fractions (cont.)

<p>mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>4.MD.A.3 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measure scale.</p> <p>4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions</p> <p>4.NF. B 3 (a-d) Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>4.NF. B 4 Apply and extend</p>				
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Unit 6: Fractions (cont.)

<p>previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>3. NF. A 1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.</p>				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Teacher made worksheets and assessments, iPad app resources, online resources</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 7: Bookkeeping

Targeted State Standards: 7.EE – Expressions and Equations, A-SSE – Seeing Structure in Expressions, A-CED – Creating Equations, A-REI – Reasoning with equations and inequalities, N-Q – Number and Quantity.

Unit Objectives/Enduring Understandings: Students will be able to keep an accurate spreadsheet of deposits and withdrawals for a bank account. Students will be able to take an inventory and determine the amount of items needed for replenishment.

Essential Questions: How much money is in our account? What is needed to replenish our necessary items?

Unit Assessment: Teacher developed assessments both verbal and written.

	Core Content		Instructional Actions	
Cumulative Progress Indicators	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> A-SSE.1. Interpret expressions that represent a quantity in terms of its context. <ul style="list-style-type: none"> a. Interpret parts of an expression, such as terms, factors, and coefficients. A-SSE.2. Use the structure of an expression to identify ways to rewrite it. A-CED.1. Create equations and inequalities in one variable and use them to solve problems. A-CED.3. Represent constraints by equations or inequalities, and by systems of equations 	<ul style="list-style-type: none"> Key terms: Deposit, withdrawal, receipt, deposit slip, inventory, orders. The purpose of keeping an accurate account spreadsheet How to check and use online banking for an account. How to calculate the current balance. The purpose of keeping an accurate inventory. How to determine what to order. How to place an order. How to pay for an order. 	<ul style="list-style-type: none"> Locate necessary information on a receipt or deposit slip. Input necessary information from deposits and withdrawals into an account ledger. Calculate the current balance by adding or subtracting transactions. Verify the account balance using online banking. Determine irregularities in charges. Count items in stock to take an accurate inventory. 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Real life account spreadsheet Online banking Hands on inventory Real life ordering 	<ul style="list-style-type: none"> Teacher made quizzes/ tests Unit tests Exit tickets Performance Assessments

Unit 7: Bookkeeping (cont.)

<p>and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.</p> <ul style="list-style-type: none"> • A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. • A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. • N-Q.2. Define appropriate quantities for the purpose of descriptive modeling. • 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. • 7.EE.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the 		<ul style="list-style-type: none"> • Determine what is needed to be ordered to maintain a full stock. • Place an accurate order to replenish stock. • Pay for an order using a Debit card. 		
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Unit 7: Bookkeeping (cont.)

<p>quantities in it are related.</p> <ul style="list-style-type: none"> • 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. • 7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. 				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Teacher made worksheets and assessments, iPad app resources, online resources</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 8: Cash Purchases

Targeted State Standards: 7.EE – Expressions and Equations, A-SSE – Seeing Structure in Expressions, A-CED – Creating Equations, A-REI – Reasoning with equations and inequalities, N-Q – Number and Quantity.

Unit Objectives/Enduring Understandings: Students will be able to calculate the final price of an item.

Essential Questions: How do you become an effective customer? Why is the amount we pay sometimes more than the cost of the item?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> ● A-SSE.1. Interpret expressions that represent a quantity in terms of its context. <ul style="list-style-type: none"> a. Interpret parts of an expression, such as terms, factors, and coefficients. ● A-SSE.2. Use the structure of an expression to identify ways to rewrite it. ● A-CED.1. Create equations and inequalities in one variable and use them to solve problems. ● A-CED.3. Represent constraints by equations or inequalities, and by systems of equations 	<ul style="list-style-type: none"> ● That most states charge sales tax on goods sold. ● The total purchase price of an item is equal to the cost plus the sales tax. ● How to compare the unit prices of items. ● How to determine the “better buy” ● Using coupons and rebates lowers the prices of items. ● When a tip is appropriate and how to calculate it. 	<ul style="list-style-type: none"> ● Compute the sales tax. ● Calculate the total purchase price. ● Compute the unit price. ● Find the better buy based on unit price. ● Compute the final price after using a coupon or rebate. ● Compute the sale price when the markdown rate is known. ● When to leave a tip. ● How to calculate an appropriate tip. 	<ul style="list-style-type: none"> ● iPad applications ● Grouping ● Differentiated Activities ● Modeling ● Applications ● CBI to retail stores ● Online shopping 	<ul style="list-style-type: none"> ● Teacher made quizzes/ tests ● Unit tests ● Exit tickets ● Performance Assessments

Unit 8: Cash Purchases (cont.)

<p>and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.</p> <ul style="list-style-type: none"> ● A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. ● A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. ● N-Q.2. Define appropriate quantities for the purpose of descriptive modeling. ● 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. ● 7.EE.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. 				
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Unit 8: Cash Purchases (cont.)

<ul style="list-style-type: none"> • 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. • 7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. • 9.3.HT-REC.7 Compare different ticket sales options to maximize revenue for recreation, amusement and attraction venues. 				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Mathematics with Business Applications Textbook Chapter 6 Pgs. 230-255. Mathematics with Business Applications Student Activity Workbook.</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 9: Gross Income

Targeted State Standards: 7.EE – Expressions and Equations, A-SSE – Seeing Structure in Expressions, A-CED – Creating Equations, A-REI – Reasoning with equations and inequalities.

Unit Objectives/Enduring Understandings: Students will be able to compute the various ways one can earn gross income.

Essential Questions: What skills and understanding will a student need in order to compute their gross income?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> A-SSE.1. Interpret expressions that represent a quantity in terms of its context. <ul style="list-style-type: none"> a. Interpret parts of an expression, such as terms, factors, and coefficients. A-SSE.2. Use the structure of an expression to identify ways to rewrite it. A-CED.1. Create equations and inequalities in one variable and use them to solve problems. A-REI-1. Explain each step in solving a simple equation as following from the equality of 	<ul style="list-style-type: none"> Key Terms: Hourly rate, straight-time pay, overtime, and piecework. The difference between regular hours and overtime hours. What motivates a company to pay via different commission rates. What motivates a company to pay overtime vs. hiring extra employees. Difference between weekly, biweekly, semimonthly, and monthly pay. 	<ul style="list-style-type: none"> Calculate straight-time pay. Compute straight-time pay, overtime, and total pay. Calculate the total hours on a weekly time card. Compute the total pay based on a piecework basis. Determine salary per pay period. Calculate the commission (straight of graduated) and determine the gross pay. 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Have students review rounding integers to the hundredths place in preparation of working with money. Have students discuss different ways of earning income. Use sample 	<ul style="list-style-type: none"> Complete straight-time pay chart, pg 93 Overtime problems, pg 95 Complete pg 98 employee time card chart #11. Problems pg.100 (3-10) Commission problems pg 105 Graduated commission problems pg 107 Study guide and assessment key words pg 109

Unit 9: Gross Income (cont.)

<p>numbers asserted at the previous step, starting from the assumption that the original equation has a solution.</p> <ul style="list-style-type: none"> • A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. • 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. • 7.EE.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. • 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. • 7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. 			<p>paychecks.</p> <ul style="list-style-type: none"> • Have students list the pros and cons of each type of wage earnings • Have students discuss jobs they are interested and how those jobs would be paid. 	
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Unit 9: Gross Income (cont.)

<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Mathematics with Business Applications Textbook Chapter 1 Pgs. 90-113. Mathematics with Business Applications Student Activity Workbook.</p>	<p>Instructional Adjustments:</p> <ul style="list-style-type: none">• Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge.• Vary instructional delivery methods to target auditory, visual, and kinesthetic learners.• Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models• Use tiered activities that provide different levels of support, challenge, or complexity
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Unit 10: Net Income

Targeted State Standards: 7.EE – Expressions and Equations, **A-SSE** – Seeing Structure in Expressions, **A-CED** – Creating Equations, **A-REI** – Reasoning with equations and inequalities.

Unit Objectives/Enduring Understandings: Students will be able to determine the amount of money withheld for taxes.

Essential Questions: How do the state and federal government determine the money withheld for taxes?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> ● A-SSE.1. Interpret expressions that represent a quantity in terms of its context. <ul style="list-style-type: none"> a. Interpret parts of an expression, such as terms, factors, and coefficients. ● A-CED.1. Create equations and inequalities in one variable and use them to solve problems. ● A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. ● A-REI.3. Solve linear equations and inequalities in one variable, including equations with 	<ul style="list-style-type: none"> ● Different people may pay different income tax rates based on their level of income. ● How different kinds of deductions affect “take-home pay” from paychecks(difference between gross and net pay) ● Federal taxes are necessary to keep government agencies and services operational. 	<ul style="list-style-type: none"> ● Use tables to determine withholdings from federal income tax. ● Compute state taxes on a straight percent basis. ● Compute state taxes on a graduated income basis. ● Determine income withholdings for social security and Medicare taxes. ● Calculate deductions for group insurance. ● Compute net pay per pay period. 	<ul style="list-style-type: none"> ● iPad applications ● Grouping ● Differentiated Activities ● Modeling ● Applications ● Discuss what the federal and state governments do with our taxes. ● Have students bring in paychecks to compare their deductions. ● Discuss types of healthcare insurance. 	<ul style="list-style-type: none"> ● Complete chart pg. 117 ● Calculate personal exemptions pg. 120 ● Find graduated state commission problems pg. 125 ● Group health insurance problems pg. 127 ● Complete charts pg. 130

Unit 10: Net Income (cont.)

<p>coefficients represented by letters.</p> <ul style="list-style-type: none"> ● 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. ● 7.EE.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. ● 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. ● 7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. 				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Mathematics with Business Applications Textbook Chapter 2 Pgs. 114-139. Mathematics with Business Applications Student Activity Workbook.</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> ● Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. ● Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. ● Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models ● Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 11: Budgeting

Unit Targeted State Standards: 7.EE – Expressions and Equations, A-SSE – Seeing Structure in Expressions, A-CED – Creating Equations, A-REI – Reasoning with equations and inequalities.

Unit Objectives/Enduring Understandings: Students will be able to compare how much money they are earning with how much money they are spending both for the Java Lounge and for someone’s personal life.

Essential Questions: How do you use a budget to keep your expenses less than your earnings?

Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> A-SSE.1. Interpret expressions that represent a quantity in terms of its context. <ul style="list-style-type: none"> a. Interpret parts of an expression, such as terms, factors, and coefficients. A-SSE.2. Use the structure of an expression to identify ways to rewrite it. A-CED.1. Create equations and inequalities in one variable and use them to solve problems. 	<ul style="list-style-type: none"> The purpose of recordkeeping in order to determine what is spent monthly. The difference between living, fixed and annual expenses. The difference between a budget for a business and one’s personal life. 	<ul style="list-style-type: none"> Record/compute average monthly expenditures. Use past records to prepare monthly budget sheets. Draw comparisons from amount budgeted to actual expenditures. Create a budget for the Java Lounge Create a budget for one’s personal life. 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Have students create their own budget sheet for the Java Lounge. Have students create their own budget sheets, then determine how much they would have to make monthly in 	<ul style="list-style-type: none"> Find average expenditures pg. 148 Prepare a budget sheet provided by teacher Create a budget of monthly expenses from student experiences Review key words pg. 157

Unit 11: Budgeting (cont.)

<ul style="list-style-type: none"> ● A-CED.3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods. ● A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. ● A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. ● 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. ● 7.EE.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. 			<p>order to meet their budget.</p> <ul style="list-style-type: none"> ● Discuss what an individual can do if they go over their budget. ● Have the students discuss why it is important to have an emergency fund 	
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Unit 11: Budgeting (cont.)

<ul style="list-style-type: none"> • 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. • 7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. 				
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Mathematics with Business Applications Textbook Chapter 3 Pgs. 144-163. Mathematics with Business Applications Student Activity Workbook.</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		

Unit 12: Checking/Savings Accounts

Targeted State Standards: 7.EE – Expressions and Equations, **A-SSE** – Seeing Structure in Expressions, **A-CED** – Creating Equations, **A-REI** – Reasoning with equations and inequalities.

Unit Objectives/Enduring Understandings: Students will be able to compare/contrast checking and savings accounts.

Essential Questions: Why place money in a checking or savings account?

Unit Assessment: Teacher developed assessments both verbal and written.

Cumulative Progress Indicators	Core Content		Instructional Actions	
	Concepts <i>What students will know.</i>	Skills <i>What students will be able to do.</i>	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> A-SSE.1. Interpret expressions that represent a quantity in terms of its context. <ul style="list-style-type: none"> a. Interpret parts of an expression, such as terms, factors, and coefficients. A-CED.1. Create equations and inequalities in one variable and use them to solve problems. A-REI.1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. 	<ul style="list-style-type: none"> Benefits and services offered by a checking and savings account. Some companies use direct deposit(benefit to payer and payee) Methods of withdrawing money from different types of accounts. That a bank pays interest on every account as a rental fee for using your money. How simple interest is calculated. How compounded interest is calculated. 	<ul style="list-style-type: none"> Write numbers as words Write a personal check Balance a check register Calculate the current balance on a checking account bank statement Reconcile a check register with a bank account statement Compute online banking charges and update the check register accordingly. Calculate simple interest Compute the compound interest and the amount 	<ul style="list-style-type: none"> iPad applications Grouping Differentiated Activities Modeling Applications Have students complete real deposit slips Create a spreadsheet check register Reconcile bank statements with check registers Compare online banking from 	<ul style="list-style-type: none"> Find the total deposits pg. 168 Find the new balances pg. 174 Reconcile bank statements pg. 180 Compute simple interest problems pg. 207 Complete compound interest worksheet

Unit 12: Checking/Savings Accounts (cont.)

<ul style="list-style-type: none"> • A-REI.3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. • 7.EE.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. • 7.EE.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. • 7.EE.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. • 7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. 			<p>different banks</p> <ul style="list-style-type: none"> • Research interest rates from different banks • Introduce the compound interest formula 	
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices Mathematics with Business Applications Textbook Chapter 4 Pgs. 164-193. Mathematics with Business Applications Textbook Chapter 5 Pgs. 194-227. Mathematics with Business Applications Student Activity Workbook.</p>		<p>Instructional Adjustments:</p> <ul style="list-style-type: none"> • Students may be assisted through adjustments to assignments deemed necessary as per the Individual Educational Plan. Worksheets and presentation materials may be modified spatially, with regard to the volume of content and in terms of font size. Students may be given additional time to complete assignments. Students may receive one-to-one teacher support or assistance from a paraprofessional. Teacher may group students based upon prior student knowledge. • Vary instructional delivery methods to target auditory, visual, and kinesthetic learners. • Incorporate a variety of teaching strategies such as: direct instruction, inquiry-based learning, cooperative learning, and information processing models • Use tiered activities that provide different levels of support, challenge, or complexity 		