Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Basic Math Skills**

Content Standards: **Read, Write, and Compare Numbers**
Perform Operations with Fractions and Decimals
Convert Decimals, Percents, and Fractions

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.

ISTE Standards:
1 Basic operations and concepts
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1   Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.1.3.2 Compare and/or order any real numbers (rational and irrational may be mixed.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems.

Pacing Guide: **3 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments
A. Number Operations • Read place values • Write numbers • Compare numbers B. Decimals, Percents, Fractions • Convert • Simplify • Operations	• Practice reading, writing, and comparing whole numbers and decimals • Convert fractions to decimals to percents, etc. • Add, subtract, multiply and divide fractions and decimals • Find the percent of a number	• <u>Mathematics with Business Applications</u> (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • CPS • Spiral review & project Binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems/journals • Bell ringers **Remediation** • Tutoring **Enrichment** • Internet research activities

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Basic Math Skills**

Content Standards: **Read and Interpret Charts and Graphs**
                               Estimate and Round

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.2.11D Describe and explain the amount of error that may exist in a computation using estimates.
2.2.11E Recognize that the degree of precision needed in calculating a number depends on how the results will be used and the instruments used to generate the measure.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.6.8A Compare and contrast different plots of data using values of mean, median, mode, quartiles and range.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems.
M11.E.1.1.1 Create and/or use appropriate graphical representations of data, including box-and-whisker plots, stem-and-leaf plots, scatter plots, line/double line, bar/double bar and circle graphs.
M11.E.1.1.2 Answer questions based on displayed data
M11.E.4.1.1 Estimate or calculate to make predictions based on a circle, line, or bar graph or given situation.

Pacing Guide: **3 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments

A. Charts and Graphs
  • Bar Graph
  • Line Graph
  • Pie Chart
  • Tables & Charts
 	
B. Estimation
  • Estimate Amounts
  • Rounding
	• Read various types of graphs
	
	• Interpret information provided in graphs
	
	• Determine information that is misrepresented in graphs
	
	• Create various types of graphs and charts
	
	• Estimate amount of money
	
	• Round to the nearest dollar, cent, etc.
		• <u>Mathematics with Business Applications</u> (Glencoe, 2007)
		
		• Supplemental resources
		
		• Calculators
		
		• Software
		
		• Teacher provided materials
		
		• PSSA Math materials
		
		• Bell ringers
		
		• CPS
		
		• Spiral review & project binder
		
		• Appendix
			• Tests/quizzes
			
			• Observation
			
			• Homework
			
			• Class work
			
			• Projects
			
			• PSSA problems/journals
			
			• Bell ringers
			
			Remediation
			• Software
			• Tutoring
			
			Enrichment
			• Internet research activities
			• Group projects

Unit: Basic Math Skills

Content Standard: **Problem Solving Strategies**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
 2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-
        routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to
        communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.

ISTE Standards:
1 Basic operations and concepts
3 Technology productivity tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1   Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction,
            change fraction to decimal, etc.)
M11.A.1.3.2 Compare and/or order any real numbers (rational and irrational may be mixed.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems.

Pacing Guide: **5 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments
A. Problem-Solving Steps B. Strategies • Identify information • Multi-step problems • Estimation • Patterns • Guess and check • Work backwards	• Learn four step procedure for solving problems • Identify necessary information in a word problem • Discuss various strategies to use to solve problems • Apply estimation, guess and check, and working backwards strategies to various problems • Find patterns in problems and use them to solve various problems	• <u>Mathematics with Business Applications</u> (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • CPS • Spiral review & project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems/journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Income**

Content Standard: **Calculate All Aspects of Income**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
 2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-
        routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to
        communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.6.8A Compare and contrast different plots of data using values of mean, median, mode, quartiles and range.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change
        fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems.

Pacing Guide: **6 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments

A. Pay
  • Hourly
  • Overtime
 	
B. Time Cards
 	
C. Other Types of Pay
  • Salary
  • Piecework
  • Commission
	• Calculate hourly wages for a pay period
	
	• Calculate yearly, monthly, weekly salary
	
	• Calculate overtime wages at time and a half and double time
	
	• Determine time worked from a time card
	
	• Find percent of a number to calculate tips and commission
	
	• Compare and contrast being paid an hourly rate or a salary
		• <u>Mathematics with Business Applications</u> (Glencoe, 2007)
		
		• Supplemental resources
		
		• Calculators
		
		• Software
		
		• Teacher provided materials
		
		• PSSA Math materials
		
		• Bell ringers
		
		• Sample time cards and paychecks
		
		• CPS
		
		• Spiral review & project binder
		
		• Appendix
			• Tests/quizzes
			
			• Observation
			
			• Homework
			
			• Class work
			
			• Projects
			
			• PSSA problems/journals
			
			• Bell ringers
			
			Remediation
			• Software
			• Tutoring
			
			Enrichment
			• Internet research activities
			• Group projects

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Income**

Content Standard: **Calculate all Aspects of Income**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
 2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.2.11F Demonstrate skills for using computer spreadsheets and scientific and graphing calculators.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-
        routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical
        representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-
        routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change
        fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems.
M11.A.3.2.1 Use estimation to solve problems.
M11.D.2.1.3 Write, solve and/or apply a linear equation.
M11.E.1.1.1 Create and/or use appropriate graphical representations of data, including box-and-whisker plots, stem-and-leaf plots, scatter plots,
        line/double line, bar/double bar and circle graphs.
M11.E.1.1.2 Answer questions based on displayed data.

Pacing Guide: **6 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments

A. Income Tax
  • Federal
  • State
  • Graduated state
 	
B. Other Deductions
  • Social security
  • Medicare
  • Health insurance
 	
C. Net and Gross Pay
 	
D. Tax Returns
	• Read tax tables
	
	• Determine how much income tax is withheld from each check
	
	• Discuss how personal exemptions affect your pay
	
	• Calculate the amount of deductions from each pay period
	
	• Interpret a statement of earnings
	
	• Determine if you owe or would get money back from taxes
	
	• Determine deductions from a pay period
	
	• Compare and contrast net and gross pay
	
	• Complete tax forms
	
	• Complete creative lab in text
		• <u>Mathematics with Business Applications</u> (Glencoe, 2007)
		
		• Supplemental resources
		
		• Calculators
		
		• Software
		
		• Teacher provided materials
		
		• PSSA Math materials
		
		• Bell ringers
		
		• Sample time cards and paychecks
		
		• CPS
		
		• Spiral review & project binder
		
		• Appendix
			• Tests/quizzes
			
			• Observation
			
			• Homework
			
			• Class work
			
			• Projects
			
			• PSSA problems
			
			• Journals
			
			• Bell ringers
			
			Remediation
			• Software
			• Tutoring
			
			Enrichment
			• Internet Research Activities
			• Group Projects

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Recordkeeping**

Content Standard: **Prepare a Personal Budget**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
 2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-
        routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical
        representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.6.8A   Compare and contrast different plots of data using values of mean, median, mode, quartiles and range.
2.9.11F Use the properties of angles, arcs, chords, tangents and secants to solve problems involving circles.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1   Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change
            fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems.
M11.C.1.1.2 Recognize or use the properties of arcs, semicircles, inscribed angles and/or central angles
M11.E.1.1.1 Create and/or use appropriate graphical representations of data, including box-and-whisker plots, stem-and-leaf plots, scatter plots,
            line/double line, bar/double bar and circle graphs.
M11.E.1.1.2 Answer questions based on displayed data
M11.E.2.1.1 Calculate or select the appropriate measure of central tendency of a set of data given or represented on a table, line plot, or stem-and-leaf
            plot.
M11.E.2.1.3 Describe how outliers affect measures of central tendency

Pacing Guide: **6 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments
A. Budget B. Fixed and Variable Expenses	• Create an expense record • Perform operations with money • Determine fixed and variable expenses • Compare wants and needs • Discuss items that compose a budget • Create a budget using circle graphs and/or charts • Estimate expenses • Solve problems involving money • Calculate average costs • Determine what to do in case of an emergency cost	• Mathematics with Business Applications (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • Sample budgets • CPS • Spiral review & project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems • Journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities • Group projects

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Checking Accounts**

Content Standards: **Balance a Checking Account**
                              Write Checks and Deposits
                              Reconcile an Account

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems.
M11.D.2.1.3 Write, solve and/or apply a linear equation.
M11.E.1.1.2 Answer questions based on displayed data

Pacing Guide: **8 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments

A. Deposits
  • Deposit slips
  • ATM & PIN
 	
B. Checking Account
  • Signature card
  • Checks
  • Register
 	
C. Statements
  • Balance
  • Debit card fees
  • Overdraft fees
  • Service fees
  • Reconciling an account
 	
D. Online Banking
  • Balance
	• Discuss paying with cash versus a check: pros and cons
	
	• Prepare deposit/withdrawal slips
	
	• Write checks and complete a register
	
	• Balance a checkbook
	
	• Read and interpret a bank statement
	
	• Calculate debit card fees
	
	• Reconcile checking accounts
	
	• Discuss extra services fees and types of accounts
	
	• Compare and contrast online banking with regular banking
	
	• Complete project determining which bank and account type best suits your needs
		• Mathematics with Business Applications (Glencoe, 2007)
		
		• Supplemental resources
		
		• Calculators
		
		• Software
		
		• Teacher provided materials
		
		• PSSA Math materials
		
		• Bell ringers
		
		• Checking account materials
		
		• CPS
		
		• Spiral review and project binder
		
		• Appendix
			• Tests/quizzes
			• Observation
			• Homework
			• Class work
			• Projects
			• PSSA problems
			• Journals
			• Bell ringers
			
			Remediation
			• Software
			• Tutoring
			
			Enrichment
			• Internet research activities
			• Group projects

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Savings Accounts**

Content Standards: **Calculate Simple and Compound Interest**
Determine Correct Account Types

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems
M11.D.2.1.3 Write, solve and/or apply a linear equation
M11.E.1.1.2 Answer questions based on displayed data

Pacing Guide: **7 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments
A. Savings Accounts • Deposits • Withdrawals • Statements • Minimum balance B. Interest • Simple • Compound	• Determine differences in account types • Write out deposit and withdrawal slips • Calculate simple and compound interest • Compare interest rates and methods of compounding interest to save the most money • Calculate service fees for various types of accounts	• Mathematics with Business Applications (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • CPS • Spiral review and project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems • Journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities • Group projects

Unit: **Cash Purchases**

Content Standards: **Calculate Discounts, Taxes, Rebates, and Unit Price**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations.
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11   Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to check solve problems
M11.D.2.1.3 Write, apply and/or solve a linear equation

Pacing Guide: **6 days**

Course Content	Student Performance	Resources	Assessments

A. Sales Tax
 	
B. Unit Pricing
  • Comparison shopping
 	
C. Other Discounts
  • Coupons
  • Rebates
  • Markdowns
 	
D. Catalogs/Online Orders
  • Shipping Costs
  • Returns
	• Discuss sales tax and how to calculate it
	
	• Find unit price to find the best buy
	
	• List the pros and cons from shopping at a well-known store to a discount store
	
	• Calculate item costs with discounts, rebates, etc.
	
	• Fill out a catalog order form
	
	• Calculate costs for a catalog order including shipping and handling, tax, etc.
	
	• Compare and contrast shopping in a store, a catalog, and online
	
	• Discuss how returning an item could cost you money if it was ordered online/catalog
		• <u>Mathematics with Business Applications</u> (Glencoe, 2007)
		
		• Supplemental resources
		• Calculators
		• Software
		• Teacher provided materials
		• PSSA Math materials
		• Bell ringers
		• Sample catalogs
		• CPS
		• Spiral review and project binder
		• Appendix
			• Tests/quizzes
			• Observation
			• Homework
			• Class work
			• Projects
			• PSSA problems
			• Journals
			• Bell ringers
			
			Remediation
			• Software
			• Tutoring
			
			Enrichment
			• Internet research activities
			• Group projects

Math Planned Course: Consumer Mathematics – Grade 12

Unit: Credit Cards

Content Standards: **Calculating Balance, Finance Charges, and Fees on a Credit Card Account**
Understanding Credit Card Statements

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems
M11.D.2.1.3 Write, solve and/or apply
M11.E.1.1.2 Answer questions based on displayed data

Pacing Guide: **6 days**

Math Planned Course: Consumer Mathematics – Grade 12

Course Content	Student Performance	Resources	Assessments
A. Statements • Minimum payment • Balance and interest • Special offers B. Finance Charges • Unpaid balance method • Average-daily-balance methods	• Complete a credit card application accurately • Discuss pros and cons of using a credit card • List places where it would be wise to use a credit card • Explain introductory rates and balance transfer charges • Read and interpret a credit card statement • Calculate balance • Calculate interest and finance charges • Calculate various fees and late charges • Determine how long it would take to pay off a balance paying the minimum amount	• Mathematics with Business Applications (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • CPS • Spiral review and project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems • Journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities • Group projects

Math Planned Course: Consumer Mathematics – Grade 12

Unit: **Loans**

Content Standards: **Compare and Contrast Various Types of Loans**
Calculate Interest on Loans

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems
M11.D.2.1.3 Write, solve and/or apply a linear equation
M11.E.1.1.2 Answer questions based on displayed data

Pacing Guide: **6 days**

Course Content	Student Performance	Resources	Assessments
A. Types of Loans • Single-payment loans • Installment loans • Simple interest loans B. APR and payments	• Discuss reasons for obtaining a loan • Determine best type of loan • Complete a loan application accurately • Understand about credit rating and how score is calculated • Calculate loan payments and interest rates • Calculate loan fees and extra charges • Compare and contrast types of loans • Compare monthly and overall costs for loans from different banks or time frames	• <u>Mathematics with Business Applications</u> (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • Loan materials • CPS • Spiral review and project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems • Journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities • Group projects

Unit: **Vehicle Transportation**

Content Standards: **Determine the Cost of Buying and Maintaining a Vehicle**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
 2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems
M11.D.2.1.3 Write, apply and/or solve a linear equation
M11.E.1.1.2 Answer questions based on displayed data

Pacing Guide: **8 days**

Course Content	Student Performance	Resources	Assessments
A. Vehicle Types • New • Used B. Costs • Buy • Lease • Loans • Payment plans • Renting C. Insurance D. Repairs and inspections	• Compare types of vehicles • List options that would be "necessary" on a car • Compare different makes and models for safety, costs, features, etc. • Calculate costs to buy/lease a car • Calculate loan costs and monthly payments • Compare types of car insurance • Calculate insurance costs and determine deductible • List normal repair costs for a car • Analyze a repair bill	• <u>Mathematics with Business Applications</u> (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • Newspaper ads • Car websites • CPS • Spiral review and project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems • Journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities • Group projects

Unit: **Housing Costs**

Content Standard: **Calculate Costs for Renting/Owning a Home**

State Curriculum Standards:

2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:

1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:

M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems
M11.D.2.1.3 Write, apply and/or solve a linear equation
M11.E.1.1.2 Answer questions based on displayed data

Pacing Guide: **8 days**

Course Content	Student Performance	Resources	Assessments

A. Mortgage Loans
  • Payments
  • Interest
  • Closing costs
 	
B. Buying a Home
  • Down payment
  • Payments
  • Closing costs
  • Homeowner's insurance
 	
C. Other Costs
  • Electric
  • Gas
  • Water
  • Phone
	• Weigh pros and cons of renting or owning a home
	
	• Calculate monthly rent, moving costs, and security deposit
	
	• Determine needs for an apartment/house
	
	• Read and interpret a lease agreement
	
	• Determine the need for renter's insurance
	
	• Determine type of home needed/wanted
	
	• Calculate down payment and mortgage costs
	
	• Determine closing costs
	
	• Determine type of home owner's insurance and monthly costs
	
	• Discuss options for utilities
	
	• Compare and contrast utility
		• <u>Mathematics with Business Applications</u> (Glencoe, 2007)
		
		• Supplemental resources
		• Calculators
		• Software
		• Teacher provided materials
		• PSSA Math materials
		• Bell ringers
		• CPS
		• Spiral review and project binder
		• Appendix
			• Tests/quizzes
			• Observation
			• Homework
			• Class work
			• Projects
			• PSSA problems
			• Journals
			• Bell ringers
			
			Remediation
			• Software
			• Tutoring
			
			Enrichment
			• Internet research activities
			• Group projects

	plans • Calculate payments for various types of utilities		

Unit: **Travel and Vacations**

Content Standard: **Plan a Vacation**

State Curriculum Standards:
2.1.11A Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms).
2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem-solving situations
2.2.11B Use estimation to solve problems for which an exact answer is not needed
2.3.11A Select and use appropriate units and tools to measure to the degree of accuracy required in particular measurement situations.
2.3.11C Demonstrate the ability to produce measures with specified levels of precision.
2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems.
2.5.11B Use symbols, mathematical terminology, standard notation, mathematical rules, graphing and other types of mathematical representations to communicate observations, predictions, concepts, procedures, generalizations, ideas and results.
2.5.11C Present mathematical procedures and results clearly, systematically, succinctly and correctly.
2.8.11D Formulate expressions, equations, inequalities, systems of equations, systems of inequalities and matrices to model routine and non-routine problem situations.

ISTE Standards:
1 Basic operations and concepts
2 Social, ethical, and human issues
3 Technology productivity tools
4 Technology communications tools
5 Technology research tools
6 Technology problem-solving and decision-making tools

PSSA Anchors:
M11.A.1.1.1 Represent and/or use fractions as decimals and percents (item may ask for 2 of any of these 3 – change percent to fraction, change fraction to decimal, etc.)
M11.A.2.1.1 Solve problems using operations with rational numbers including rates and percents.
M11.A.2.1.2 Solve problems using direct and inverse proportions.
M11.A.2.1.3 Identify and/or use proportional relationships in problem solving settings.
M11.A.3.1.1 Simplify expressions using the order of operations to solve problems
M11.A.3.2.1 Use estimation to solve problems
M11.C.3.1.1 Find the distance and/or midpoint between 2 points on a number line or on a coordinate plane
M11.D.2.1.3 Write, apply and/or solve a linear equation
M11.E.2.1.1 Find/select/use the appropriate measure of central tendency of a set of data given or represented on a table, line plot, or stem-and-leaf plot.

Math Planned Course: Consumer Mathematics – Grade 12

Pacing Guide: **7 days**

Course Content	Student Performance	Resources	Assessments
A. Vacations • Transportation • Lodging • Site seeing • Meals	• Determine a destination for a trip • Compare different methods of transportation and costs of each • Calculate mileage and gas costs • Determine driving time to a destination • Calculate the cost of a package vacation compared to separate costs • Compare costs of staying at a hotel versus a condo, etc. • Calculate costs for different site seeing and entertainment on the trip • Calculate costs for meals if separate or included in the package	• <u>Mathematics with Business Applications</u> (Glencoe, 2007) • Supplemental resources • Calculators • Software • Teacher provided materials • PSSA Math materials • Bell ringers • Sample budgets • Travel brochures • Maps • CPS • Spiral review and project binder • Appendix	• Tests/quizzes • Observation • Homework • Class work • Projects • PSSA problems • Journals • Bell ringers **Remediation** • Software • Tutoring **Enrichment** • Internet research activities • Group projects