

Building Successful Futures • Each Student • Every Day

## **High School SPED Consumer Math Curriculum**

**Course Description:** Students in Consumer Math will learn the basics of managing money using a variety of math stills to compute weekly/annual wages, overtime hours, figuring tips, rounding money, as well as comparing gross pay to net pay. They will also examine checking/savings accounts, taxes, loans, and investments as they relate to financial planning.

Timeframe	Unit	Instructional Topics
23 Days	Money Management	Topic 1: Computing Income Topic 2: Basic Money Concepts Topic 3: Budgeting
20 Days	Financial Planning	Topic 1: Bank Accounts Topic 2: Employment Topic 3: Expenditures
20 Days	Credit	Topic 1: Loans/Debt Topic 2: Credit
2 Days	Data Analysis	Topic 1: Data Analysis

#### **Scope and Sequence:**

## Unit 1: Money Management

Subject: Consumer Math

Grade: 9-12

Name of Unit: Money Management

#### Length of Unit: 23 days

**Overview of Unit**: Students will learn the basics of managing money using a variety of math skills to compute weekly/annual wages, overtime hours, figuring tips, rounding money as well as comparing gross pay vs. net pay.

#### **Priority Standards for unit:**

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

#### Supporting Standards for unit:

- MPFC.MM.3. Evaluate the consequences of personal financial decisions.
- MPFC.MM.4. Apply a decision-making process to personal financial choices.
- MPFC.MM.8. Demonstrate how to use the services available from financial institutions.
- MPFC.SC.3. Compare the advantages and disadvantages of different payment methods.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
a financial plan (budget) for earning,			
spending, saving, and investing.	Design	Create	3

#### Essential Questions:

- 1. How do you determine weekly and annual wages?
- 2. Why is it necessary to compare prices when shopping?
- 3. Why do consumers need to budget money?

#### **Enduring Understanding/Big Ideas**:

- 1. Students should be able to compute weekly and annual wages using various basic math operations (addition, multiplication, division).
- 2. Students need to compare prices when shopping for various items in the real world on a daily basis.

3. Students should understand basic concepts of the importance of budgeting to apply to everyday math skills.

#### **Unit Vocabulary:**

Academic Cross-Curricular Words	<b>Content/Domain Specific</b>
Wages	Weekly wages
Sales tax	Annual wages
Budget	Gross pay
	Net pay
	Overtime
	Salary
	Commission
	Sales tax
	Discount
	Flat rate
	Depreciate
	Budget
	Expenses

**Resources for Vocabulary Development:** textbook, online resources

## Topic 1: Computing Income

#### **Engaging Experience 1**

Title: Weekly and Annual Wages

Suggested Length of Time: 1 day

Standards Addressed

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.SC.3. Compare the advantages and disadvantages of different payment methods.

**Detailed Description/Instructions:** Students will compute weekly and annual wages using basic math operations (addition, subtraction, multiplication) to solve given problems.

Bloom's Levels: Create

Webb's DOK: 3

#### **Engaging Experience 2**

**Title:** Working Overtime **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.SC.3. Compare the advantages and disadvantages of different payment methods.

**Detailed Description/Instructions:** Students will compute time and a half rates and double time rates based on an hourly wage. Students will find the number of total hours, regular hours, and overtime hours.

**Bloom's Levels:** create Webb's DOK: 3

**Engaging Experience 3** 

**Title:** Tips **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

#### Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices. **Detailed Description/Instructions:** Students will determine total income earned from a combination of regular wages and tips and then compute earning including tips from given scenarios.

Bloom's Levels: create Webb's DOK: 3

#### **Engaging Experience 4**

Title: Rounding Money Suggested Length of Time: 1 day Standards Addressed

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices.

**Detailed Description/Instructions:** Students will find the amount of money rounded to the nearest cent, dime, and dollar. Students will change a given percent to a decimal.

Bloom's Levels: create

Webb's DOK: 3

#### **Engaging Experience 5**

**Title:** Net Pay Vs. Gross Pay **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.SC.3. Compare the advantages and disadvantages of different payment methods.

**Detailed Description/Instructions:** Students will identify an employee's net pay after deductions are totaled and subtracted from gross pay using a given table of five workers. **Bloom's Levels:** create

## Topic 2: Basic Money Concepts

**Engaging Experience 1** 

Title: Reading, Expressing, and Adding Prices

Suggested Length of Time: 1 day

#### **Standards Addressed**

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices **Detailed Description/Instructions:** Students will use a given grocery store ad and calculate the total cost of a group of groceries. Students will find prices of equal value given a sequence of prices. Students will express prices as dollars and cents.

Bloom's Levels: create

Webb's DOK: 3

#### **Engaging Experience 2**

**Title:** Computing Change **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

- MPFC.MM.4. Apply a decision-making process to personal financial choices
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will use a grocery store ad (both in textbook and online) to find the cost of a list of groceries, then calculate change to be given.

Bloom's Levels: create Webb's DOK: 3

#### **Engaging Experience 3**

**Title:** Using Coupons **Suggested Length of Time:** 2 days **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices **Detailed Description/Instructions:** Students will use coupons that are valid only if certain conditions are met. Students will need to read the given information on each coupon and answer questions for each. Students will explore coupons that can be used for a limited amount of time. Students will find the cost of one item and total cost of a number of single items and also find the savings of buying several items at the same time given a chart to fill in missing information. **Bloom's Levels:** create

Webb's DOK: 3

#### **Engaging Experience 4**

Title: Sale prices & discounts Suggested Length of Time: 2 days Standards Addressed

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices **Detailed Description/Instructions:** Students will compute the amount of money saved on sale items using a given chart to complete. Students will find the sale price of an item when the regular price and the discount rate are known. Students will then compute the sale price and amount saved on a given item.

Bloom's Levels: create Webb's DOK: 3

## Topic 3: Budgeting

#### **Engaging Experience 1**

**Title:** Preparing a Budget **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices

**Detailed Description/Instructions:** Students will construct a budget by listing various expenses by category. Students will then use a budget plan to find the amount of money to be budgeted for each category.

Bloom's Levels: create Webb's DOK: 3

**Engaging Experience 2** 

**Title:** Adjusting a budget **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices **Detailed Description/Instructions:** Students will use ratios for comparing spending with net income. Students will also determine percent of income spend on each budget category. **Bloom's Levels:** create **Webb's DOK:** 3

#### **Engaging Experience 3**

Title: Balancing a budget

Suggested Length of Time: 3 days

#### Standards Addressed

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices

**Detailed Description/Instructions:** Students will compute budget records to see if a budget is balanced. Students will compute funds available when a monthly budget is overspent. **Bloom's Levels:** create **Webb's DOK:** 3

#### **Engaging Experience 4**

**Title:** Online shopping activity **Suggested Length of Time:** 2 days **Standards Addressed** 

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

- MPFC.MM.4. Apply a decision-making process to personal financial choices
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will be computing the total amount of an online purchase order including sales tax and shipping charges. Students will also comparison shop using prices at various online stores.

Bloom's Levels: create Webb's DOK: 3

#### **Engaging Experience 5**

Title: Traveling Suggested Length of Time: 3 days Standards Addressed

Priority:

• MPFC.MM.7. Design a financial plan (budget) for earning, spending, saving, and investing.

Supporting:

• MPFC.MM.4. Apply a decision-making process to personal financial choices **Detailed Description/Instructions:** Students will read maps and compute distance. Students will compute travel fares and hotel expenses using both text and online resources. Students will compute the cost of car rentals, entertainment, etc. when going on a vacation.

Bloom's Levels: create

## Engaging Scenario

**Engaging Scenario** (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

Students will design a monthly budget from a given "real life" scenario including all expenses such as mortgage payment, utility bills, cell phone bill, car payment, food, entertainment.

# Summary of Engaging Learning Experiences for Topics

Торіс	Engaging Experience Title	Description	Suggested Length of Time
Computing Income	Weekly and annual wages	Students will compute weekly and annual wages using basic math operations	1 day
Computing Income	Working overtime	Students will compute time and a half rates and double time rates based on an hourly wage. Students will find the number of total hours, regular hours, and overtime hours.	1 day
Computing Income	Tips	Students will determine total income earned from a combination of regular wages and tips and then compute earning including tips from given scenarios.	
Computing Income	Rounding Money	Students will find the amount of money rounded to the nearest cent, dime, and dollar. Students will change a given percent to a decimal.	1 day
Computing Income	Net Pay vs. Gross pay	Students will identify an employee's net pay after deductions are totaled and subtracted from gross pay using a given table of five workers.	
Basic Money Concepts	Reading, expressing and adding prices	and calculate the total cost of a group of groceries.	
Basic Money Concepts	Computing change	Students will use a grocery store ad (both in textbook and online) to find the cost of a list of groceries, then calculate change to be given.	1 day

Basic Money Concepts	Using coupons	Students will use coupons that are valid only if certain conditions are met. Students will need to read the given information on each coupon and answer questions for each. Students will explore coupons that can be used for a limited amount of time. Students will find the cost of one item and total cost of a number of single items and also find the savings of buying several items at the same time given a chart to fill in missing information.	2 days
Basic Money Concepts	Sale prices and discounts	Students will compute the amount of money saved on sale items using a given chart to complete. Students will find the sale price of an item when the regular price and the discount rate are known. Students will then compute the sale price and amount saved on a given item.	1 day
Budgeting	Preparing a budget	Students will construct a budget by listing various expenses by category. Students will then use a budget plan to find the amount of money to be budgeted for each category.	1 day
Budgeting	Adjusting a budget	Students will use ratios for comparing spending with net income. Students will also determine percent of income spend on each budget category.	1 day
Budgeting	Balancing a budget	A Students will compute budget records to see if a budget s balanced. Students will compute funds available when a monthly budget is overspent.	
Budgeting	Online shopping activity	Students will be computing the total amount of an online purchase order including sales tax and shipping charges. Students will also comparison shop using prices at various online stores.	2 days

and hotel expenses using both text and online resources. Students will compute the cost of car rentals, entertainment, etc. when going on a vacation.	Budgeting	Traveling	resources. Students will compute the cost of car rentals, entertainment, etc. when going on	3 days
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## Unit 2: Financial Planning

Subject: Consumer Math

Grade: 9-12

Name of Unit: Financial Planning

Length of Unit: 20 days

**Overview of Unit**: Students will examine checking/savings accounts, taxes, and investments to solve given math problems that relate to aspects of real-world financial planning.

#### **Priority Standards for unit:**

• MPFC.I.1. Identify components and sources of income.

#### Supporting Standards for unit:

- MPFC.SC.1. Compare the benefits and costs of alternatives in spending decisions.
- MPFC.SC.2. Evaluate information about products and services.
- MPFC.SI.2. Explain the relationship between saving and investing.
- MPFC.SI.3. Examine reasons for saving and investing, e.g., time value of money.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

		Bloom's	
Unwrapped Concepts	<b>Unwrapped Skills</b>	Taxonomy	Webb's
(Students need to know)	(Students need to be able to do)	Levels	DOK
components and sources of income.	Identify	Remember	1

#### **Essential Questions**:

- 1. Why is it important to use a checking/savings account?
- 2. How does the student search for various jobs/careers?
- 3. Why would an individual want to invest money?
- 4. How will taxes affect me?

#### **Enduring Understanding/Big Ideas**:

- 1. Students should be able to understand basic concepts of the use of a checking/savings account and how this applies to everyday finances.
- 2. Students should be able to demonstrate knowledge of how to search for jobs/careers using a variety of online resources.
- 3. Investing money is an effective way to plan for one's financial future.
- 4. Taxes are a part of earnings that is deducted to help pay for public services.

#### **Unit Vocabulary:**

Academic Cross-Curricular Words	Content/Domain Specific
	Savings account
	Checking account
	Investment
	Insurance
	Liable
	Premium
	Gas mileage
	Expenses
	Balancing a budget
	Revenue
	Deductions
	Exemptions
	Dependent
	Taxable income
	Refund

**Resources for Vocabulary Development:** textbook, online resources

### Topic 1: Bank Accounts

#### **Engaging Experience 1**

Title: Checking and Savings accounts Suggested Length of Time: 4 days Standards Addressed

Priority:

• MPFC.I.1. Identify components and sources of income.

Supporting:

- MPFC.SI.2. Explain the relationship between saving and investing.
- MPFC.SI.3. Examine reasons for saving and investing, e.g., time value of money.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will practice writing a personal check and discuss the importance of a checking/savings account, how to use online banking. Students will also practice keeping an account up to date using a given check register. Teacher can share a sample bank statement with students as well.

Bloom's Levels: Remember Webb's DOK: 1

#### **Engaging Experience 2**

**Title:** Reconciling a checking account **Suggested Length of Time:** 1 day **Standards Addressed** 

Priority:

• MPFC.I.1. Identify components and sources of income.

Supporting:

- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.

- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will reconcile a checking account given the bank balance, unprocessed deposits, and unreturned checks.

Bloom's Levels: remember Webb's DOK: 1

## Topic 2: Employment

#### **Engaging Experience 1**

Title: Job Search Suggested Length of Time: 2 days Standards Addressed

Priority:

• MPFC.I.1. Identify components and sources of income.

Supporting:

- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will explore online resources to search various forms of employment according to their individual interests. Students will be researching salaries, benefits, retirement plans, etc.

Bloom's Levels: remember Webb's DOK: 1

## Topic 3: Expenditures

#### **Engaging Experience 1**

**Title:** Paying Taxes **Suggested Length of Time:** 4 days **Standards Addressed** 

Priority:

• MPFC.I.1. Identify components and sources of income.

Supporting:

- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will be introduced to what taxes are and how they are used. Students will then calculate total exemptions deductions and taxable income based on a person's income. Students will read a tax table to determine the federal tax due based on filing status and taxable income.

Bloom's Levels: remember Webb's DOK: 1

#### **Engaging Experience 2**

Title: Property Taxes Suggested Length of Time: 1 day Standards Addressed

Priority:

• MPFC.I.1. Identify components and sources of income.

Supporting:

- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will discuss what property taxes are and examine sample of local property tax (teacher's personal sample) and compute assessed value given the market value and the assessment rate. Students will also express tax rates as percents, compute property taxes.

Bloom's Levels: remember Webb's DOK: 1

#### **Engaging Experience 2**

Title: Investments Suggested Length of Time: 5 days Standards Addressed

Priority:

• MPFC.I.1. Identify components and sources of income.

Supporting:

- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Students will discuss the stock market and compute the new price of a stock after and increase, compute the profit or loss per share of stock, compute the cost of shares of stock, compute the number of shares that can be purchased for a given amount of money. Students will compute the total dividend for an investment and the number of shares that can be purchased under given circumstances.

Bloom's Levels: remember

### ngaging Scenario

**Engaging Scenario** (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

Divide students into small groups. Have each group select 5 companies listed on the New York Stock Exchange. The groups should select the companies with the idea that they will be asked to predict which company will experience the greatest gain in one week and which company will experience the greatest loss in one week. Have each group submit its selections and predictions in writing. One week later, ask each group to calculate the profit or loss per share for each company selected and to compare the actual performance with the predicted performance.

# Summary of Engaging Learning Experiences for Topics

Торіс	Engaging Experience Title	Description	Suggested Length of Time
Bank Accounts	Checking/savings accounts	Students will practice writing a personal check and discuss the importance of a checking/savings account, how to use online banking. Students will also practice keeping an account up to date using a given check register. Teacher can share a sample bank statement with students as well.	4 days
Bank Accounts	Reconciling a checking account	Students will reconcile a checking account 1 given the bank balance, unprocessed deposits, and unreturned checks.	
Employment	Job Search	Students will explore online resources to search various forms of employment according to their individual interests. Students will be researching salaries, benefits, retirement plans, etc.	2 days
Expenditures	Paying taxes	Students will be introduced to what taxes are and how they are used. Students will then calculate total exemptions deductions and taxable income based on a person's income. Students will read a tax table to determine the federal tax due based on filing status and taxable income.	
Expenditures	Property taxes	Students will discuss what property taxes are and examine sample of local property tax (teacher's personal sample) and compute assessed value given the market value and the assessment rate. Students will also express tax rates as percents, compute property taxes.	1 day

Expenditures	Investments	Students will discuss the stock market and compute the new price of a stock after and increase, compute the profit or loss per share of stock, compute the cost of shares of stock, compute the number of shares that can be purchased for a given amount of money. Students will compute the total dividend for an investment and the number of shares that can be purchased under given circumstances.	5 days
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# Unit 3: Credit

Subject: Consumer Math

Grade: 9-12 Name of Unit: Credit Length of Unit: 20 days

**Overview of Unit**: Students will learn about how to take out a loan for their college of choice, a home, and a car. Students will also learn about credit cards, including interest rates and credit scores.

#### **Priority Standards for unit:**

• MPFC.SC.4. Analyze the benefits and cost of consumer credit.

#### Supporting Standards for unit:

- MPFC.SC.5. Compare sources of consumer credit (e.g., credit cards, consumer loans, auto loans, student loans).
- MPFC.SC.6. Evaluate the terms and conditions of credit cards and consumer loans.
- MPFC.SC.7. Evaluate factors that affect creditworthiness.
- MPFC.SC.8. Explain the purpose and components of credit records.
- MPFC.SC.8. Demonstrate awareness of consumer protection and information (e.g., identity theft, phishing, scams).
- MPFC.SC.10. Describe the rights and responsibilities of buyers and sellers under consumer protection laws.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- TT.AB.D.8: Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)		Webb's DOK
the benefits and cost of consumer			
credit.	Analyze	Analyze	2

#### Essential Questions:

- 1. Why are loans used?
- 2. Why is it important to know interest rates?
- 3. How does credit impact everyday life?

#### Enduring Understanding/Big Ideas:

- 1. Loans are used to help finance large consumer purchases such as cars, homes, college and are a vital component for life beyond high school.
- 2. Interest rates are important when purchasing a home, applying for credit cards or student loans, etc.
- 3. Credit impacts everyday life of the consumer when purchasing a home, car, getting a cell phone, etc.

#### **Unit Vocabulary:**

Academic Cross-Curricular Words	<b>Content/Domain Specific</b>
Mortgage	Car loan
Interest rate	Mortgage
Debt	Fixed-rate mortgage
Loan	Variable-rate mortgage
Financed	Interest rate
	Debt
	Credit score
	Down payment
	Financed
	Principal

**Resources for Vocabulary Development:** textbook, online resources

### Topic 1: Loans/Debt

#### **Engaging Experience 1**

Title: Student Loans

Suggested Length of Time: 5-6 days

#### **Standards Addressed**

Priority:

• MPFC.SC.4. Analyze the benefits and cost of consumer credit.

Supporting:

- MPFC.SC.5. Compare sources of consumer credit (e.g., credit cards, consumer loans, auto loans, student loans).
- MPFC.SC.6. Evaluate the terms and conditions of credit cards and consumer loans.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-EMPOWERED LEARNER1.B build networks and customize their learning environments in ways that support the learning process.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** The students will explore the costs and benefits of going to college in this lesson. The teacher will show a guided example of what exactly needs to be done for this activity. Then, have students research the college they would like to attend and admissions qualifications. They will also research information about scholarships, loans, and grants. Once they know the amount of money it will cost them to attend for four years, they will then need to contact a bank. They will go through the entire process with a bank employee (as a teacher you will need to contact the bank first and do a skype interview with a banker as an example for the class). Once they have completed the loan process, they will then need to see how long it will take them to pay off the loan with their desired income they will have in the future. A 30-year plan is the final product for this project.

Bloom's Levels: Analyze

#### **Engaging Experience 2**

Title: Car Loan

#### Suggested Length of Time: 4 days

#### Standards Addressed

Priority:

• MPFC.SC.4. Analyze the benefits and cost of consumer credit.

Supporting:

- TT.AB.D.8: Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.
- MPFC.SC.5. Compare sources of consumer credit (e.g., credit cards, consumer loans, auto loans, student loans).
- MPFC.SC.6. Evaluate the terms and conditions of credit cards and consumer loans.
- MPFC.SC.7. Evaluate factors that affect creditworthiness.
- MPFC.SC.8. Explain the purpose and components of credit records.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Have small groups of students explore the costs of transportation in an urban setting. Have them focus on the city they live in or have them interview a friend/relative who lives in any large city with good mass transit. Ask students to compare the monthly expenses of a commuter who travels by train and/or bus to work each day with the monthly expenses of a commuter who drives approximately the same distance each way. Students should take into account all gasoline, insurance, car payment, parking, and other expenses incurred by the driver. After comparing the cost of driving with the cost of public transportation, students might think about other costs that are not measured in terms of money, such as convenience, travel time, traffic congestion, comfort, and the benefits of having an automobile available for other purposes. Ask groups to prepare a report of their findings with each group member participating in the presentation to the class.

Bloom's Levels: Analyze

## Topic 2: Credit

#### **Engaging Experience 1**

Title: Using a Credit Card Suggested Length of Time: 2 days Standards Addressed

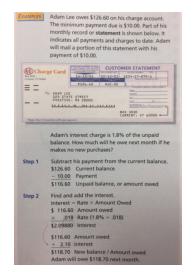
Priority:

• MPFC.SC.4. Analyze the benefits and cost of consumer credit.

Supporting:

- MPFC.SC.5. Compare sources of consumer credit (e.g., credit cards, consumer loans, auto loans, student loans).
- MPFC.SC.6. Evaluate the terms and conditions of credit cards and consumer loans.
- MPFC.SC.7. Evaluate factors that affect creditworthiness.
- MPFC.SC.8. Explain the purpose and components of credit records.
- MPFC.SC.9. Demonstrate awareness of consumer protection and information (e.g., identity theft, phishing, scams).
- MPFC.SC.10. Describe the rights and responsibilities of buyers and sellers under consumer protection laws.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Using this scenario:



Ask small groups to calculate the unpaid balance, interest charge if the interest rate is 1.5% per month, and new balance each month with monthly payments of \$10. Tell students to continue the calculations until the balance is paid off. Have groups repeat this activity with monthly payments of \$40 and with one payment of the current balance. Ask student to compare the amount of interest charged under **Bloom's Levels:** Analyze

### **Engaging Scenario**

**Engaging Scenario** (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.) Banks publish advertising brochures on mortgage insurance, savings plans, and other financial topics. Collect brochures from different local banks that explain their mortgage insurance plans. Ask students to read the brochures and highlight any mathematical information that would be useful to consumers. The students will then make their own brochure for their imaginary bank. They will try to provide the best service and sales plan for someone who is going to be a first-time homeowner.

# Summary of Engaging Learning Experiences for Topics

Торіс	Engaging Experience Title	Description	Suggested Length of Time
Loans/Debt	Student Loan	Students make a 30-year plan of taking out a loan for college, and how they will pay it back.	5-6 days
Loans/Debt	Car Loans	Comparing the amount of cost between public transportation and owning a car	4 days
Credit	Using a Credit Card	Given a credit card situation have students manipulate monthly payments and interest.	2 days

## Unit 4: Data Analysis

Subject: Consumer Math

**Grade**: 9-12 **Name of Unit**: Data Analysis

Length of Unit: 7 days

**Overview of Unit**: This unit will review the parts of a graph, and the different types of graphs and their purpose. Students will analyze and interpret the data from a graph, and also create graphs with linear equations.

#### **Priority Standards for unit:**

• Alg1.NQ.B.2: Define and use appropriate quantities for representing a given context or problem.

#### Supporting Standards for unit:

- Alg1.NQ.B.1: Use units of measure as a way to understand and solve problems involving quantities.
  - a. Identify, label and use appropriate units of measure within a problem.
  - b. Convert units and rates.
  - c. Use units within problems.
  - d. Choose and interpret the scale and the origin in graphs and data displays.
- Alg1.IF.B.1: Using tables, graphs and verbal descriptions, interpret key characteristics of a function that models the relationship between two quantities.
- Alg1.DS.A.1: Analyze and interpret graphical displays of data.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

Unwrapped Concepts	Unwrapped Skills	<b>Bloom's Taxonomy</b>	Webb's
(Students need to know)	(Students need to be able to do)	Levels	DOK
use appropriate quantities for			
representing a given context or			
problem.	Define	Understand	1

#### Essential Questions:

- 1. Why it is important to identify parts of a graph?
- 2. How does a consumer analyze data?
- 3. How would a consumer create a graph?

#### Enduring Understanding/Big Ideas:

- 1. Identifying parts of a graph is an important skill to interpret various forms of data.
- 2. Consumers may need to analyze data from various forms of graphs such as circle graphs, bar graphs, charts, etc., in everyday life.
- 3. Graphs are an effective way to visually represent a variety of financial planning.

#### **Unit Vocabulary:**

Academic Cross-Curricular Words	<b>Content/Domain Specific</b>
Proportion	Bar graph
	Circle graph
	T-chart
	Ratio
	Proportion
	Area
	Perimeter

**Resources for Vocabulary Development:** textbook, online resources

### Topic 1: Data Analysis

#### **Engaging Experience 1**

Title: Vacation Graph

#### Suggested Length of Time: 2 days

**Standards Addressed** 

Priority:

• Alg1.NQ.B.2: Define and use appropriate quantities for representing a given context or problem.

Supporting:

- Alg1.NQ.B.1: Use units of measure as a way to understand and solve problems involving quantities.
  - A. Identify, label and use appropriate units of measure within a problem.
  - B. Convert units and rates.
  - C. Use units within problems.
  - D. Choose and interpret the scale and the origin in graphs and data displays
- Alg1.DS.A.1: Analyze and interpret graphical displays of data.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.
- ISTE-DIGITAL CITIZEN.2: Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- ISTE KNOWLEDGE COLLECTOR.3: Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.

**Detailed Description/Instructions:** Student's will pick a dream vacation to take with their family or friends. They will have a set amount of money to be able to spend. They will research and estimate how much money they will spend each area: entertainment/activities, food and drink, transportation, hotel, gas, and souvenirs. They will then make a graph of their choice (bar, pie, pictograph, or line graph) to represent each area and present their findings to the class. The students will need to defend why they picked the graph they did and why they are spending the designated amount of money in each area.

**Bloom's Levels:** Analyze **Webb's DOK:** 2

#### **Engaging Experience 2**

Title: Suggested Field Trip Suggested Length of Time: 2 days Standards Addressed

Priority:

• Alg1.NQ.B.2: Define and use appropriate quantities for representing a given context or problem.

Supporting:

- Alg1.NQ.B.1: Use units of measure as a way to understand and solve problems involving quantities.
  - a. Identify, label and use appropriate units of measure within a problem.
  - b. Convert units and rates.
  - c. Use units within problems.
  - d. Choose and interpret the scale and the origin in graphs and data displays.
- Alg1.IF.B.1: Using tables, graphs and verbal descriptions, interpret key characteristics of a function that models the relationship between two quantities.
- TT.AB.I.4: Students will express pride, confidence and healthy self-esteem without denying the value and dignity of other people.

**Detailed Description/Instructions:** Students will be helping to plan a class field trip to somewhere in the area. They will need to find the flat fee (which will represent B when graphing) and find the rate of change for how many students will be attending. The students will make a presentation and answer the following questions about their field trip:

Make a linear equation for the cost of your field trip. How many students could attend the field trip if our budget is \$250. Could we take 75 students without going over the budget? etc. **Bloom's Levels:** Evaluate

### **Engaging Scenario**

**Engaging Scenario** (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

Students will choose 3 different types of surveys to produce as a comprehensive test for this unit. Students will pick questions such as: What is your favorite fast food chain? What is your favorite sport? Who do you think will win this year's Super Bowl? Etc. Students will use class time to walk around the school independently and ask teacher/students/administration to participate in their survey. Teacher will need to remind students of the social behavior that is expected in the hall and how to address someone in a professional manner. Students will come back to the classroom once they have gained 10 answers per survey. They will then make three different graphs for each survey and label the graphs correctly. Students will find the mean, median, and mode for their graphs. Students will present their graphs to the class.

# Summary of Engaging Learning Experiences for Topics

Торіс	Engaging Experience Title	Description	Suggested Length of Time
Data Analysis	Vacation Graph	Plan a vacation and make a graph of how the spending will be distributed.	2 days
Data Analysis	Suggested Field Trip	Plan a field trip and make a linear equation to represent the cost per student.	2 days

# **Unit of Study Terminology**

<u>Appendices</u>: All Appendices and supporting material can be found in this course's shell course in the District's Learning Management System.

Assessment Leveling Guide: A tool to use when writing assessments in order to maintain the appropriate level of rigor that matches the standard.

**Big Ideas/Enduring Understandings:** Foundational understandings teachers want students to be able to discover and state in their own words by the end of the unit of study. These are answers to the essential questions.

**Engaging Experience:** Each topic is broken into a list of engaging experiences for students. These experiences are aligned to priority and supporting standards, thus stating what students should be able to do. An example of an engaging experience is provided in the description, but a teacher has the autonomy to substitute one of their own that aligns to the level of rigor stated in the standards.

**Engaging Scenario:** This is a culminating activity in which students are given a role, situation, challenge, audience, and a product or performance is specified. Each unit contains an example of an engaging scenario, but a teacher has the ability to substitute with the same intent in mind.

**Essential Questions:** Engaging, open-ended questions that teachers can use to engage students in the learning.

**<u>Priority Standards</u>**: What every student should know and be able to do. These were chosen because of their necessity for success in the next course, the state assessment, and life.

Supporting Standards: Additional standards that support the learning within the unit.

**Topic:** These are the main teaching points for the unit. Units can have anywhere from one topic to many, depending on the depth of the unit.

<u>Unit of Study:</u> Series of learning experiences/related assessments based on designated priority standards and related supporting standards.

<u>Unit Vocabulary:</u> Words students will encounter within the unit that are essential to understanding. Academic Cross-Curricular words (also called Tier 2 words) are those that can be found in multiple content areas, not just this one. Content/Domain Specific vocabulary words are those found specifically within the content.