

## **Moon Area School District Curriculum Map**

**Course: Math with Business Applications**

**Grade Level: 12**

**Content Area: Mathematics**

**Frequency: Full-Year Course**

### **Big Ideas**

1. Gross Pay
2. Net Pay
3. Banking Services
4. Spending Wisely
5. Loans and Credit Cards
6. Owning a Car
7. Owning a Home
8. Insurance
9. Investments
10. Budgeting
11. Managing Employees

### **Essential Questions**

12. How do you calculate earnings?
13. How do you calculate deductions from pay and net pay?
  14. How do you manage a checking account?
  15. How do you manage a savings account?
  16. How do you calculate the cost of goods?
  17. How do you manage a credit card account?
18. How do you calculate the cost of installment loans?
  19. How do you calculate the cost of an auto loan?
  20. How do you calculate the cost of car ownership?
  21. How do you calculate the cost of a mortgage?
  22. How do you calculate property tax?
23. How do you calculate the cost of homeowners insurance?
  24. How do you calculate the cost of health insurance?
  25. How do you calculate the cost of life insurance?
26. How do you calculate the cost and income/loss from investments?
  27. How do you manage expenditures?
  28. How do you write a budget?
29. How do you calculate the cost of hiring employees?

**Primary Resource(s) & Technology:**

Business Math 16<sup>th</sup> Edition from Thompson South-Western, IXL online software, Microsoft Teams, Promethean Boards, Student Laptops

**Pennsylvania and/or focus standards referenced at:**

[www.pdesas.org](http://www.pdesas.org)  
[www.education.pa.gov](http://www.education.pa.gov)

| <b>Big Ideas/EQs</b> | <b>Focus Standard(s)</b> | <b>Assessed Competencies (Key content and skills)</b>  | <b>Timeline</b> |
|----------------------|--------------------------|--|-----------------|
| 1, 12                | CC.2.1.HS.F.2            | <ul style="list-style-type: none"><li>• Converting elapsed time for trips or timecards</li><li>• Compute the total pay on a piecework basis</li><li>• Compute the salary per pay period</li><li>• Compute the straight commission and determine the gross pay</li><li>• Compute the total graduated commission</li></ul>   | 8 Days          |
| 2, 13                | CC.2.1.HS.F.2            | <ul style="list-style-type: none"><li>• Use tables to find the amount withheld for FIT</li><li>• Compute the state tax on straight percent basis</li><li>• Compute the state tax on a graduated income basis</li><li>• Compute the amount of income withheld for social security and Medicare taxes</li><li>• Compute the deduction for group insurance</li><li>• Compute the net pay per pay period</li></ul> | 13 Days         |
| 3, 14                | CC.2.1.HS.F.2            | <ul style="list-style-type: none"><li>• Compute the total checking account deposit</li><li>• Write a check</li><li>• Compute the balance in a check register</li><li>• Compute the present balance on a checking account bank statement</li><li>• Reconcile a check register and a bank statement</li></ul>  | 12 Days         |
| 3, 15                | CC.2.1.HS.F.2            | <ul style="list-style-type: none"><li>• Compute the new balance in a savings account passbook</li><li>• Compute simple interest</li><li>• Compute the compound interest and the amount</li><li>• Find the compound interest with tables</li><li>• Find the compound interest using tables</li></ul>  | 12 Days         |

|              |               |  |         |
|--------------|---------------|--|---------|
| 4, 16        | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the sales tax</li> <li>• Compute the total purchase price</li> <li>• Compute the unit price</li> <li>• Find the better buy based on unit price</li> <li>• Compute the final price after using a coupon or rebate</li> <li>• Compute the dollar amount of the markdown</li> <li>• Compute the sale price when markdown rate is known</li> </ul>  | 13 Days |
| 5, 17        | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the total purchase price</li> <li>• Compute the new balance in charge account</li> <li>• Compute the finance charge by the previous balance method</li> <li>• Compute the finance charge by the unpaid balance method</li> <li>• Compute the finance charge based on the average daily balance, no new purchases included</li> <li>• Compute the finance charge based on the average daily balance, new purchases included</li> </ul>   | 14 Days |
| 5, 18        | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the maturity value and interest rate of a single-payment loan</li> <li>• Compute the amount financed on an installment loan</li> <li>• Compute the monthly payment, total payment, repaid, and finance charge on an installment loan</li> <li>• Compute the payment to interest, payment to principal, and the new balance</li> <li>• To compute the final payment when paying off a simple interest installment loan</li> <li>• Use a table to find the annual percentage rate of a loan</li> <li>• Compute the finance charge refunded for early repayment of a loan</li> </ul> | 14 Days |
| 6, 8, 19, 20 | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the sticker price of a new automobile and dealer's cost</li> <li>• Compute the average retail price of a used automobile</li> </ul>   | 13 Days |

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|------------------|---------------|---|---------|
|                  |               | <ul style="list-style-type: none"> <li>• Use tables to compute the annual premium for automobile insurance</li> <li>• Compute the total cost per mile of operating and maintaining an automobile</li> <li>• Compute the total cost of leasing an automobile</li> <li>• Compute the cost per mile of renting an automobile</li> </ul>  |         |
| 7, 8, 21, 22, 23 | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the mortgage loan amount</li> <li>• Compute the monthly payment, total amount paid, and total interest charged</li> <li>• Compute the total closing cost</li> <li>• Compute the allocation of monthly payment toward principal, interest, and the new principal</li> <li>• Compute the assessed value and taxes of real estate</li> <li>• Compute the amount of coverage</li> <li>• Compute the annual homeowner's insurance premium</li> <li>• Compute the total housing cost and compare it with suggested guidelines</li> </ul> | 17 Days |
| 8, 24, 25        | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the health insurance premiums</li> <li>• Compute the amount paid by the patient for medical care</li> <li>• Use tables to compute the annual premium for term life insurance</li> <li>• Use tables to compute the annual premiums for three types of life insurance</li> </ul>   | 10 Days |
| 9, 26            | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Use tables to compute interest on certificates of deposit</li> <li>• Compute the effective annual yield</li> <li>• Compute the total cost of a stock investment</li> <li>• Compute the annual yield and annual dividend of a stock investment</li> <li>• Compute the profit or loss from a stock sale</li> <li>• Compute the annual interest and annual yield of a bond investment</li> </ul>  | 13 Days |
| 10, 27, 28       | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the average monthly expenditure</li> </ul>   | 10 Days |

|        |               |  |         |
|--------|---------------|--|---------|
|        |               | <ul style="list-style-type: none"> <li>• Use records of past expenditures to prepare a monthly budget</li> <li>• Compare the amount budgeted to actual expenditure and personal spending to typical spending</li> </ul>  |         |
| 11, 29 | CC.2.1.HS.F.2 | <ul style="list-style-type: none"> <li>• Compute the cost of recruiting new employees</li> <li>• Compute the new salary after merit increase and cost of living adjustment</li> <li>• Compute the rate of employee benefits based on annual gross pay</li> <li>• Compute the disability benefits under independent retirement systems and under social security</li> <li>• Compute the total business travel expense</li> <li>• Compute the total employee training costs</li> </ul> | 13 Days |