

# **Academic Standards for Business, Computer and Information Technology**

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**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF EDUCATION**

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# Business, Computer and Information Technology Standards

## GRADES Pre K-12

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### **Marketing .....15.9.**

*Marketing as a Profession*

*Marketing Fundamentals*

*Communications in Marketing*

*Consumer Behavior*

*Marketing Mix*

*Research*

*Marketing Plan*

*Marketing Technology*

*Marketing Law and Ethics*

### **Glossary.....III.**

# Business, Computer and Information Technology Standards

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### II. INTRODUCTION

This document includes Business, Computer, and Information Technology Standards:

- |                                               |                               |
|-----------------------------------------------|-------------------------------|
| ◇ 15.1. Accounting                            | ◇ 15.6. Finance and Economics |
| ◇ 15.2. Career Management                     | ◇ 15.7. Global Business       |
| ◇ 15.3. Communication                         | ◇ 15.8. Management            |
| ◇ 15.4. Computer and Information Technologies | ◇ 15.9. Marketing             |
| ◇ 15.5. Entrepreneurship                      |                               |

The Business, Computer, and Information Technology Standards describe what students should know and be able to do in the field of business education at all grade levels. The standards provide the targets for instruction and student learning essential for success in all academic areas, not just business classrooms. Although the standards are not a curriculum or a prescribed series of activities, school entities will use them to develop a local school curriculum that will meet local students' needs.

Business education involves teaching students the fundamentals, theories, and processes of business. Because of the unique nature of business education, all teachers in a school will use the Business, Computer, and Information Technology Standards. The standards define the skills and strategies essential for success in life and the workplace; therefore, all teachers will assist their students in learning them through multiple classroom situations integrated in all subject areas.

The Business, Computer, and Information Technology Standards also provide parents and community members with information about what students should know and be able to do as they progress through the educational program, graduation, and the workplace. With a clearly defined target provided by the standards, parents, students, educators, community members, and other stakeholders become partners in learning success.

A glossary is included to assist the reader in understanding terminology contained in the standards. Words in bold type are included in the glossary.

# Business, Computer and Information Technology Standards

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| 15.1 Accounting                                                                                                                                                                  |                                                                                           |                                                                                |                                                                                          |                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                  | 15.1.2.<br>GRADE Pre K-2                                                                  | 15.1.5.<br>GRADE 3-5                                                           | 15.1.8.<br>GRADE 6-8                                                                     | 15.1.12.<br>GRADE 9-12                                                                                                                                                                                                                                                                                                  |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                           |                                                                                |                                                                                          |                                                                                                                                                                                                                                                                                                                         |
| Accounting as a Profession                                                                                                                                                       | 15.1.2.A.<br>With help and support, ask and answer questions about careers in accounting. | 15.1.5.A.<br>Explore various accounting careers.                               | 15.1.8.A.<br>Identify knowledge, skills, and attitudes needed for careers in accounting. | 15.1.12.A.<br>Summarize professional designations, careers, and organizations within the field of <b>accounting</b> , including education and certification requirements.                                                                                                                                               |
|                                                                                                                                                                                  | 15.1.2.B.<br>Ask and answer questions about right and wrong (ethics) in the classroom.    | 15.1.5.B.<br>Explain the need for <b>ethics</b> in the classroom and business. | 15.1.8.B.<br>Describe ethical and unethical business practices related to accounting.    | 15.1.12.B.<br>Analyze the roles of policy-setting bodies in the accounting profession, e.g., American Institute of Certified Public Accountants (AICPA), Pennsylvania Institute of Certified Public Accountants (PICPA), Generally Accepted Accounting Principles (GAAP), and Securities and Exchange Commission (SEC). |
| Accounting Fundamentals                                                                                                                                                          | 15.1.2.C.<br>Intentionally Blank                                                          | 15.1.5.C.<br>Intentionally Blank                                               | 15.1.8.C.<br>Identify the parts of the <b>accounting equation</b> .                      | 15.1.12.C.<br>Analyze business transactions using <b>T-accounts</b> to determine their impact on a business.                                                                                                                                                                                                            |
|                                                                                                                                                                                  | 15.1.2.D.<br>Intentionally Blank                                                          | 15.1.5.D.<br>Intentionally Blank                                               | 15.1.8.D.<br>Describe the components of the <b>accounting cycle</b> .                    | 15.1.12.D.<br>Analyze, <b>journalize</b> , and <b>post</b> transactions to general & subsidiary ledgers.                                                                                                                                                                                                                |
|                                                                                                                                                                                  | 15.1.2.E.<br>Intentionally Blank                                                          | 15.1.5.E.<br>Intentionally Blank                                               | 15.1.8.E.<br>Explore various technologies used in accounting.                            | 15.1.12.E.<br>Perform accounting functions using technology as a tool.                                                                                                                                                                                                                                                  |

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| <b>15.1 Accounting</b>                                                                                                                                                           |                                                                            |                                                                      |                                                                                  |                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>15.1.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                            | <b>15.1.5.<br/>GRADE 3-5</b>                                         | <b>15.1.8.<br/>GRADE 6-8</b>                                                     | <b>15.1.12.<br/>GRADE 9-12</b>                                                                                                                                             |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                            |                                                                      |                                                                                  |                                                                                                                                                                            |
|                                                                                                                                                                                  | 15.1.2.F.<br>Ask and answer questions about items you or your family own.  | 15.1.5.F.<br>Identify family and business assets.                    | 15.1.8.F.<br>Identify, recognize, and classify short- and long-term assets.      | 15.1.12.F.<br>Analyze and journalize transactions for short- and long-term assets.                                                                                         |
|                                                                                                                                                                                  | 15.1.2.G.<br>Ask and answer questions about money you or your family owes. | 15.1.5.G.<br>Identify family and business liabilities.               | 15.1.8.G.<br>Identify, recognize, and classify short- and long-term liabilities. | 15.1.12.G.<br>Analyze and journalize transactions involving short- and long-term liabilities.                                                                              |
|                                                                                                                                                                                  | 15.1.2.H.<br>Intentionally Blank                                           | 15.1.5.H.<br>Intentionally Blank                                     | 15.1.8.H.<br>Discuss the value of family and business assets over time.          | 15.1.12.H.<br>Identify, calculate, and record <b>depreciation, depletion and amortization</b> ; explain their effect on the financial statements.                          |
|                                                                                                                                                                                  | 15.1.2.I.<br>Intentionally Blank                                           | 15.1.5.I.<br>Ask and answer questions about ownership in a business. | 15.1.8.I.<br>Identify and classify the classes and rights of types of stock.     | 15.1.12.I.<br>Differentiate between and journalize entries for issuance or repurchase of stock and the declaration and payment of dividends.                               |
|                                                                                                                                                                                  | 15.1.2.J.<br>Intentionally Blank                                           | 15.1.5.J.<br>Discuss supplies needed to run a business.              | 15.1.8.J.<br>Explain the concept of <b>inventory</b> and its role in business.   | 15.1.12.J.<br>Analyze the various methods for maintaining and valuing inventory ( <b>FIFO, LIFO</b> , etc.) and describe their effect on financial statements.             |
|                                                                                                                                                                                  | 15.1.2.K.<br>Intentionally Blank                                           | 15.1.5.K.<br>Recognize and give examples of <b>revenue</b> .         | 15.1.8.K.<br>Identify and classify <b>revenue</b> .                              | 15.1.12.K.<br>Describe, calculate, and journalize the sales and cost of sales including purchases, transportation costs, <b>sales taxes</b> , and <b>trade discounts</b> . |

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| 15.1 Accounting                                                                                                                                                                  |                                                                                      |                                                                                  |                                                                                                                                                                   |                                                                                                                                                                       |
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| 15.1.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                      | 15.1.5.<br>GRADE 3-5                                                             | 15.1.8.<br>GRADE 6-8                                                                                                                                              | 15.1.12.<br>GRADE 9-12                                                                                                                                                |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                      |                                                                                  |                                                                                                                                                                   |                                                                                                                                                                       |
|                                                                                                                                                                                  | 15.1.2.L.<br>Intentionally Blank                                                     | 15.1.5.L.<br>Recognize and give examples of expenses.                            | 15.1.8.L.<br>Identify and classify <b>expenses</b> .                                                                                                              | 15.1.12.L.<br>Describe and explain the criteria used to determine <b>expenses</b> and journalize the expense transactions.                                            |
|                                                                                                                                                                                  | 15.1.2.M.<br>Ask and answer questions about being compensated for completing a task. | 15.1.5.M.<br>Describe the different methods of how people are compensated.       | 15.1.8.M.<br>Identify and give examples of net pay and gross pay.                                                                                                 | 15.1.12.M.<br>Analyze and calculate gross pay and net pay, including regular and overtime wages, commission, and piece rate.                                          |
| Framework for Financial Reporting                                                                                                                                                | 15.1.2.N.<br>Ask and answer questions about business ownership in the community.     | 15.1.5.N.<br>Discuss the different forms of business ownership in the community. | 15.1.8.N.<br>Discuss the advantages and disadvantages of the different forms of business ownership ( <b>proprietorship, partnership, and corporation</b> , etc.). | 15.1.12.N.<br>Explain how the different forms of business ownership and business operations are reported on <b>financial statements</b> .                             |
|                                                                                                                                                                                  | 15.1.2.O.<br>Intentionally Blank                                                     | 15.1.5.O.<br>Intentionally Blank                                                 | 15.1.8.O.<br>Intentionally Blank                                                                                                                                  | 15.1.12. O.<br>Compare and contrast the accrual basis and the cash basis of accounting; assess the impact of each on the financial statements.                        |
| Financial Reporting and Analysis                                                                                                                                                 | 15.1.2.P.<br>Intentionally Blank                                                     | 15.1.5.P.<br>Intentionally Blank                                                 | 15.1.8.P.<br>Identify and describe <b>bank statements</b> .                                                                                                       | 15.1.12.P.<br>Analyze and perform the <b>reconciliation</b> of accounts.                                                                                              |
|                                                                                                                                                                                  | 15.1.2.Q.<br>Intentionally Blank                                                     | 15.1.5.Q.<br>Intentionally Blank                                                 | 15.1.8.Q.<br>Identify and recognize financial reports and their purpose.                                                                                          | 15.1.12.Q.<br>Prepare financial statements (including a Balance Sheet, Profit & Loss and <b>Owner's Equity</b> ) and understand their relevance.                      |
|                                                                                                                                                                                  | 15.1.2.R.<br>Intentionally Blank                                                     | 15.1.5.R.<br>Intentionally Blank                                                 | 15.1.8.R.<br>Intentionally Blank                                                                                                                                  | 15.1.12.R.<br>Explain the primary areas of analysis (trend analysis, profitability, liquidity, capital structure) and the information that can be obtained from each. |

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| <b>15.1 Accounting</b>                                                                                                                                                           |                                  |                                                                  |                                                                                                                |                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>15.1.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                  | <b>15.1.5.<br/>GRADE 3-5</b>                                     | <b>15.1.8.<br/>GRADE 6-8</b>                                                                                   | <b>15.1.12.<br/>GRADE 9-12</b>                                                                                                                                                                   |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                                                  |                                                                                                                |                                                                                                                                                                                                  |
|                                                                                                                                                                                  | 15.1.2.S.<br>Intentionally Blank | 15.1.5.S.<br>Intentionally Blank                                 | 15.1.8.S.<br>Intentionally Blank                                                                               | 15.1.12.S.<br>Analyze and perform a <b>horizontal and vertical analysis</b> of the <b>income statement</b> and <b>balance sheet</b> .                                                            |
|                                                                                                                                                                                  | 15.1.2.T.<br>Intentionally Blank | 15.1.5.T.<br>Intentionally Blank                                 | 15.1.8.T.<br>Identify and give examples of possible financial indicators for various types of business.        | 15.1.12.T.<br>Assess <b>profitability</b> , <b>liquidity</b> , and <b>solvency</b> by calculating and interpreting financial ratios.                                                             |
|                                                                                                                                                                                  | 15.1.2.U.<br>Intentionally Blank | 15.1.5.U.<br>Intentionally Blank                                 | 15.1.8.U.<br>Intentionally Blank                                                                               | 15.1.12.U.<br>Assess capital structure by calculating and interpreting financial ratios.                                                                                                         |
|                                                                                                                                                                                  | 15.1.2.V.<br>Intentionally Blank | 15.1.5.V.<br>Intentionally Blank                                 | 15.1.8.V.<br>Intentionally Blank                                                                               | 15.1.12.V.<br>Analyze and explain the use of industry averages in assessing the financial condition, operating results, <b>profitability</b> , <b>liquidity</b> , and <b>capital structure</b> . |
|                                                                                                                                                                                  | 15.1.2.W.<br>Intentionally Blank | 15.1.5.W.<br>Discuss problems associated not having enough cash. | 15.1.8.W.<br>Identify and give examples of problems associated with a business not having enough cash on hand. | 15.1.12.W.<br>Analyze business activities using cash flow statements.                                                                                                                            |
|                                                                                                                                                                                  | 15.1.2.X.<br>Intentionally Blank | 15.1.2.X.<br>Identify costs in business.                         | 15.1.8.X.<br>Identify and list examples of <b>fixed</b> and <b>variable costs</b> .                            | 15.1.12.X.<br>Analyze and perform <b>breakeven</b> and <b>cost benefit analyses</b> to support financial decisions.                                                                              |

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| <b>15.1 Accounting</b>                                                                                                                                                           |                                  |                                                                       |                                                                             |                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>15.1.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                  | <b>15.1.5.<br/>GRADE 3-5</b>                                          | <b>15.1.8.<br/>GRADE 6-8</b>                                                | <b>15.1.12.<br/>GRADE 9-12</b>                                                                                      |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                                                       |                                                                             |                                                                                                                     |
| <b>Compliance</b>                                                                                                                                                                | 15.1.2.Y.<br>Intentionally Blank | 15.1.2.Y.<br>Discuss the price of an item and the actual amount paid. | 15.1.8.Y.<br>Identify and list examples of taxes.                           | 15.1.12.Y.<br>Determine and calculate taxable income and tax liability for both personal and business taxes.        |
|                                                                                                                                                                                  | 15.1.2.Z.<br>Intentionally Blank | 15.1.2.Z.<br>Intentionally Blank                                      | 15.1.8.Z.<br>Identify the importance of good record keeping for businesses. | 15.1.12.Z.<br>Demonstrate an <b>auditing</b> procedure that provides assurance that financial records are accurate. |

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| 15.2. Career Management                                                                                                                                                          |                                                                                                                                                                                  |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                  | 15.2.2.<br>GRADE Pre K-2                                                                                                                                                         | 15.2.5.<br>GRADE 3-5                                                                                                                                                                   | 15.2.8.<br>GRADE 6-8                                                                                                                                                                                                                                                             | 15.2.12.<br>GRADE 9-12                                                                                                                                                                                                                            |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                                                  |                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                   |
| Knowledge / Planning                                                                                                                                                             | 15.2.2.A.<br>Ask and answer questions related to personal likes and dislikes of home and school responsibilities.<br><br><i>Reference Career Education and Work 13.1.1.A - B</i> | 15.2.5.A.<br>Identify personality and character traits about yourself as related to hobbies, activities, and interests.<br><br><i>Reference Career Education and Work 13.1.5.A - B</i> | 15.2.8.A.<br>Examine various occupation options based on career assessments results, personal characteristics, talents, skills, abilities, and aptitudes as related to career pathways, clusters, or occupations.<br><br><i>Reference Career Education and Work 13.1.8.A - B</i> | 15.2.12.A.<br>Analyze personal characteristics, talents, skills, abilities and career assessment results as related to career pathways, clusters, or occupations.<br><br><i>Reference Career Education and Work 13.1.11.A - B</i>                 |
| Organizing                                                                                                                                                                       | 15.2.2.B.<br>Identify occupations of familiar adults.                                                                                                                            | 15.2.5.B.<br>Discuss <b>career pathways</b> and describe businesspeople in those pathways within the community.                                                                        | 15.2.8.B.<br>Apply various online and traditional career management tools to explore <b>career clusters</b> .                                                                                                                                                                    | 15.2.12.B.<br>Analyze a specific occupation within a <b>career cluster</b> .                                                                                                                                                                      |
|                                                                                                                                                                                  | 15.2.2.C.<br>With prompting and support, discuss the concept of a global community.                                                                                              | 15.2.5.C.<br>Identify and compare occupations within the global marketplace.                                                                                                           | 15.2.8.C.<br>Correlate individual career interests to job opportunities within the global marketplace.                                                                                                                                                                           | 15.2.12.C.<br>Analyze and compare global employment opportunities relative to career interests, including but not limited to, the country's culture, legitimacy of a global business, prospective employers, and social network/virtual identity. |
|                                                                                                                                                                                  | 15.2.2.D.<br>Ask and answer questions about different types of work.                                                                                                             | 15.2.5.D.<br>Discuss traditional and virtual work environments.                                                                                                                        | 15.2.8.D.<br>Compare and contrast occupations in a <b>virtual</b> versus a traditional work environment.                                                                                                                                                                         | 15.2.12.D.<br>Analyze job tasks and responsibilities when working in a virtual versus a traditional work environment.                                                                                                                             |
|                                                                                                                                                                                  | 15.2.2.E.<br>Intentionally Blank<br><br><i>Reference Career Education and Work 13.1.3.D</i>                                                                                      | 15.2.5.E.<br>Intentionally Blank<br><br><i>Reference Career Education and Work 13.1.5.D</i>                                                                                            | 15.2.8.E.<br>Examine school program offerings related to individual career options.<br><br><i>Reference Career Education and Work</i>                                                                                                                                            | 15.2.12.E.<br>Compare and contrast career interests with post-secondary opportunities.<br><br><i>Reference Career Education and Work</i>                                                                                                          |

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| <b>15.2. Career Management</b>                                                                                                                                                   |                                                                                                                               |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                           |                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>15.2.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                                               | <b>15.2.5.<br/>GRADE 3-5</b>                                                                                                                                                                        | <b>15.2.8.<br/>GRADE 6-8</b>                                                                                                                                                                                                                              | <b>15.2.12.<br/>GRADE 9-12</b> |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                               |                                                                                                                                                                                                     |                                                                                                                                                                                                                                                           |                                |
|                                                                                                                                                                                  |                                                                                                                               |                                                                                                                                                                                                     | <i>13.1.8.D</i>                                                                                                                                                                                                                                           | <i>13.1.12.D</i>               |
| 15.2.2.F.<br><i>Reference Mathematics 2.1.K.B</i>                                                                                                                                | 15.2.5.F.<br>Discuss the costs associated with post-secondary education.                                                      | 15.2.8.F.<br>Analyze financial options and costs associated with post-secondary education.                                                                                                          | 15.2.12.F.<br>Evaluate various methods for financing a post-secondary education.                                                                                                                                                                          |                                |
| 15.2.2.G.<br>Intentionally Blank                                                                                                                                                 | 15.2.5.G.<br>With prompting and support, ask and answer questions about forms completed for school.                           | 15.2.8.G.<br>Evaluate applications to define the purpose and audience.                                                                                                                              | 15.2.12.G<br>Analyze and complete an application (e.g., job, scholarship, financial aid, post-secondary) in a focused and effective manner.                                                                                                               |                                |
| 15.2.2.H.<br>With prompting and support, ask appropriate questions about work activities.                                                                                        | 15.2.5.H.<br>Discuss interviewing as it relates to school and community.                                                      | 15.2.8.H.<br>Identify interview strategies.                                                                                                                                                         | 15.2.12.H.<br>Demonstrate appropriate behavior for an interview.                                                                                                                                                                                          |                                |
| 15.2.2.I.<br>Identify rules within the school and community.                                                                                                                     | 15.2.5.I.<br>Explain why the U.S. has employment laws.                                                                        | 15.2.8.I.<br>Examine laws associated with employment including Child Labor Laws and Civil Rights Act of 1964.                                                                                       | 15.2.12.I.<br>Compare and contrast employment laws including, but not limited to, American with Disabilities Act (ADA), Child Labor Laws, Civil Rights Act of 1964, Consolidated Omnibus Reconciliation Act (COBRA), and Family Medical Leave Act (FMLA). |                                |
| 15.2.2.J.<br>Intentionally Blank<br><br><i>Reference Career Education and Work 13.1.3.G, 13.1.3.H</i>                                                                            | 15.2.5.J.<br>Describe the importance of career planning.<br><br><i>Reference Career Education and Work 13.1.5.G, 13.1.5.H</i> | 15.2.8.J.<br>Develop a career plan based on career assessment results, occupational research and high school course offerings.<br><br><i>Reference Career Education and Work 13.1.8.G, 13.1.8.H</i> | 15.2.12.J.<br>Analyze career goals based on, but not limited to, interest, lifestyle, skills, and values in order to transition from high school.<br><br><i>Reference Career Education and Work 13.1.11.G, 13.1.11.H</i>                                  |                                |

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| <b>15.2. Career Management</b>                                                                                                                                                   |                                                                                                                                                                                           |                                                                                                                                                                             |                                                                                                                                                                  |                                                                                                                                                |
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|                                                                                                                                                                                  | <b>15.2.2.<br/>GRADE Pre K-2</b>                                                                                                                                                          | <b>15.2.5.<br/>GRADE 3-5</b>                                                                                                                                                | <b>15.2.8.<br/>GRADE 6-8</b>                                                                                                                                     | <b>15.2.12.<br/>GRADE 9-12</b>                                                                                                                 |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                                                           |                                                                                                                                                                             |                                                                                                                                                                  |                                                                                                                                                |
|                                                                                                                                                                                  | 15.2.2.K.<br>With prompting and support, explain the importance of social connections such as friends and family.                                                                         | 15.2.5.K.<br>Define personal networks and their functions.                                                                                                                  | 15.2.8.K.<br>Explain the importance of personal networking and its impact on achieving a career goal.<br><br><i>Reference Career Education and Work 13.2.8.B</i> | 15.2.12.K.<br>Apply networking skills as a resource for further career portfolio development and career opportunities.                         |
| <b>Leading/Directing</b>                                                                                                                                                         | 15.2.2.L.<br>With prompting and support, ask and answer questions about criteria for success at home and school.                                                                          | 15.2.5. L.<br>Describe personal qualities and behavior related to being a successful student.                                                                               | 15.2.8. L.<br>Illustrate how personal qualities and behavior affect school and work success.                                                                     | 15.2.12. L.<br>Analyze how personal qualities and behavior apply in the workplace.                                                             |
|                                                                                                                                                                                  | 15.2.2. M.<br>With prompting and support, explain the types of dispositions necessary for success in school and community.<br><br><i>Reference Career Education and Work 13.3.3.A - B</i> | 15.2.5. M.<br>Explain the importance of adhering to expectations defined in the home, school, and community.<br><br><i>Reference Career Education and Work 13.3.5.A - B</i> | 15.2.8. M.<br>Explain the importance of workplace expectations.<br><br><i>Reference Career Education and Work 13.3.8.A - B</i>                                   | 15.2.2.M.<br>Evaluate the impact of workplace expectations on job performance.<br><br><i>Reference Career Education and Work 13.3.12.A - B</i> |
| <b>Evaluating &amp; Controlling</b>                                                                                                                                              | 15.2.2.N.<br><i>Reference Business, Computer and Information Technology 15.3.2.X</i>                                                                                                      | 15.2.5.N.<br><i>Reference Business, Computer and Information Technology 15.3.5.X</i>                                                                                        | 15.2.8.N.<br><i>Reference Business, Computer and Information Technology 15.3.8.X</i>                                                                             | 15.2.12.N.<br><i>Reference Business, Computer and Information Technology 15.3.12.X</i>                                                         |
|                                                                                                                                                                                  | 15.2.2.O.<br>With prompting and support, ask and answer questions relating to differences among individuals.                                                                              | 15.2.5.O.<br>Explain the importance of accepting diverse populations.                                                                                                       | 15.2.8.O.<br>Explore diversity as related to occupations.                                                                                                        | 15.2.12.O.<br>Formulate and demonstrate strategies for working with diverse populations.                                                       |

# Business, Computer and Information Technology Standards

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| <b>15.2. Career Management</b>                                                                                                                                                   |                                                                                                                                                                           |                                                                                                                                |                                                                                                                                                                                               |                                                                                                                                                                                |
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| <b>15.2.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                                                                                           | <b>15.2.5.<br/>GRADE 3-5</b>                                                                                                   | <b>15.2.8.<br/>GRADE 6-8</b>                                                                                                                                                                  | <b>15.2.12.<br/>GRADE 9-12</b>                                                                                                                                                 |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                                           |                                                                                                                                |                                                                                                                                                                                               |                                                                                                                                                                                |
|                                                                                                                                                                                  | 15.2.2.P.<br><br><i>Reference Career Education and Work 13.3.3.C; Student Interpersonal Skills 16.2.K.B</i>                                                               | 15.2.5.P.<br>Explain how conflicts can be resolved.<br><br><i>Reference Career Education and Work 13.3.5.C</i>                 | 15.2.8.P.<br>Identify strategies for conflict resolution.<br><br><i>Reference Career Education and Work 13.3.8.C</i>                                                                          | 15.2.12.P.<br>Evaluate conflicts within the workplace and demonstrate procedures to acquire a positive resolution.<br><br><i>Reference Career Education and Work 13.3.12.C</i> |
|                                                                                                                                                                                  | 15.2.2.Q.<br>Ask and answer questions related to interests and careers.<br><br><i>Reference Career Education and Work 13.3.3.F; Student Interpersonal Skills 16.2.K.B</i> | 15.2.5.Q.<br>Identify recent occupations emerging in the workplace.<br><br><i>Reference Career Education and Work 13.3.5.F</i> | 15.2.8.Q.<br>Explain how changes in society influence the job market (creation of new positions and elimination of obsolete work).<br><br><i>Reference Career Education and Work 13.3.8.F</i> | 15.2.12.Q.<br>Evaluate the impact of change, work/life balance, and lifelong learning on one's life.<br><br><i>Reference Career Education and Work 13.3.12.F</i>               |

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| <b>15.3 Communication</b>                                                                                                                                                        |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                                                                                                                     |                                                                                                                                                 |
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| <b>15.3.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                                       | <b>15.3.5.<br/>GRADE 3-5</b>                                                                                                                                                                                                                     | <b>15.3.8.<br/>GRADE 6-8</b>                                                                                                                        | <b>15.3.12.<br/>GRADE 9-12</b>                                                                                                                  |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                       |                                                                                                                                                                                                                                                  |                                                                                                                                                     |                                                                                                                                                 |
| <b>Foundations of Communication</b>                                                                                                                                              | 15.3.2.A.<br>Intentionally Blank<br><br><i>Reference English Language Arts<br/>CC.1.4.2.F, CC.1.4.2.L, CC.1.4.2.R</i> | 15.3.5.A.<br>Create work product with a variety of formats including note taking, outlines, essays, correspondence, journals and presentations.<br><br><i>Reference English Language Arts<br/>CC.1.4.2.T, CC.1.4.5.F, CC.1.4.5.L, CC.1.4.5.R</i> | 15.3.8.A.<br>Selecting the appropriate writing type to produce a work product.<br><br><i>Reference English Language Arts<br/>CC.1.4.8.T</i>         | 15.3.12.A.<br>Evaluate work product and make recommendations based on content.<br><br><i>Reference English Language Arts<br/>CC.1.4.11-12.T</i> |
|                                                                                                                                                                                  | 15.3.2.B.<br>Intentionally Blank                                                                                      | 15.3.5.B.<br>Compose simple requests for information to respond to needs of audience.                                                                                                                                                            | 15.3.8.B.<br>Produce a variety of business documents and reports; focus on content, style, and format.                                              | 15.3.12.B.<br>Analyze business documents for content and effectiveness.                                                                         |
|                                                                                                                                                                                  | 15.3.2.C.<br>Intentionally Blank<br><br><i>Reference English Language Arts<br/>CC.1.2.2.C</i>                         | 15.3.5.C.<br>Apply strategies to understand directions.<br><br><i>Reference English Language Arts<br/>CC.1.1.2.E, CC.1.2.5.C</i>                                                                                                                 | 15.3.8.C.<br>Apply strategies to understand complex directions.<br><br><i>Reference English Language Arts<br/>CC.1.2.8.C</i>                        | 15.3.12.C.<br>Create a research project based upon defined parameters.<br><br><i>Reference English Language Arts<br/>CC.1.4.11-12.V</i>         |
|                                                                                                                                                                                  | 15.3.2.D.<br>Intentionally Blank<br><br><i>Reference English Language Arts<br/>CC.1.1.2.D</i>                         | 15.3.5.D.<br>Explain and use vocabulary terms related to business and commerce.<br><br><i>Reference English Language Arts<br/>CC.1.1.5.D</i>                                                                                                     | 15.3.8.D.<br>Distinguish between appropriate and inappropriate business work products.<br><br><i>Reference English Language Arts<br/>CC.1.2.8.F</i> | 15.3.12.D.<br>Evaluate business materials (including web based resources) for value related to purpose, quality, and appropriateness.           |

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| <b>15.3 Communication</b>                                                                                                                                                               |  |                                                                                                                                                                                                |                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |
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| <b>15.3.2.<br/>GRADE Pre K-2</b>                                                                                                                                                        |  | <b>15.3.5.<br/>GRADE 3-5</b>                                                                                                                                                                   | <b>15.3.8.<br/>GRADE 6-8</b>                                                                                                                                                                       | <b>15.3.12.<br/>GRADE 9-12</b>                                                                                                                                                                                                  |
| <i><b>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</b></i> |  |                                                                                                                                                                                                |                                                                                                                                                                                                    |                                                                                                                                                                                                                                 |
| 15.3.2.E.<br>With prompting and support, use digital tools for guided research projects.<br><br><i>Reference English Language Arts<br/>CC.1.4.2.U</i>                                   |  | 15.3.5.E.<br>Distinguish between age appropriate and inappropriate print and electronic resources used for introductory research.<br><br><i>Reference English Language Arts<br/>CC.1.4.5.U</i> | 15.3.8.E.<br>Choose appropriate print and electronic resources to meet project need.<br><br><i>Reference English Language Arts<br/>CC.1.4.8.U</i>                                                  | 15.3.12.E.<br>Evaluate chosen print and electronic resources for advanced research.<br><br><i>Reference English Language Arts<br/>CC.1.4.11-12.U</i>                                                                            |
| 15.3.2.F.<br>Intentionally Blank<br><br><i>Reference English Language Arts<br/>CC.1.5.2.G, CC.1.5.2.C, CC.1.5.2.D</i>                                                                   |  | 15.3.5. F.<br>Ask meaningful questions based upon a speaker's premise.<br><br><i>Reference English Language Arts<br/>CC.1.5.5.G. CC.1.5.2.D</i>                                                | 15.3.8. F.<br>Define a position, support it with claims, and respond to questions to support claim.<br><br><i>Reference English Language Arts<br/>CC.1.5.8.G., CC.1.5.8.C, CC.1.5.8.D</i>          | 15.3.12. F.<br>Evaluate a speaker's reasoning and intent; ask questions to deepen understanding. (individual, team, employment, and business).<br><br><i>Reference English Language Arts<br/>CC.1.5.11-12.G. CC.1.5.11-12.C</i> |
| 15.3.2.G.<br>Intentionally Blank                                                                                                                                                        |  | 15.3.5.G.<br>Prepare appropriate information for impromptu and planned presentations.<br><br><i>Reference English Language Arts<br/>CC.1.5.2.D</i>                                             | 15.3.8.G.<br>Develop appropriate information and content for presentations, meetings, discussions, and group assignments.<br><br><i>Reference English Language Arts<br/>CC.1.5.8.A, CC.1.5.8.D</i> | 15.3.12.G.<br>Employ appropriate presentation skills to lead discussions and team activities.<br><br><i>Reference English Language Arts<br/>CC.1.5.11-12.A</i>                                                                  |
| 15.3.2.H.<br>Intentionally Blank                                                                                                                                                        |  | 15.3.5.H.<br>Present information as an individual or in a small group.<br><br><i>Reference English Language Arts<br/>CC.1.5.5.A, CC.1.5.5.C, CC.1.5.5.D, CC.1.5.5.E</i>                        | 15.3.8.H.<br>Deliver presentations using a variety of techniques and media; employ conventions of language.<br><br><i>Reference English Language Arts<br/>CC.1.5.8.E, CC.1.5.8.G</i>               | 15.3.12.H.<br>Evaluate presentations for language, proper techniques and media choices.<br><br><i>Reference English Language Arts<br/>CC.1.5.11-12.C, CC.1.11-12.E</i>                                                          |

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## GRADES Pre K-12

| <b>15.3 Communication</b>                                                                                                                                                        |                                                                                                                                             |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                   |
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| <b>15.3.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                                                             | <b>15.3.5.<br/>GRADE 3-5</b>                                                                                              | <b>15.3.8.<br/>GRADE 6-8</b>                                                                                                                                                             | <b>15.3.12.<br/>GRADE 9-12</b>                                                                                                    |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                             |                                                                                                                           |                                                                                                                                                                                          |                                                                                                                                   |
|                                                                                                                                                                                  | 15.3.2.I.<br>Intentionally Blank<br><br><i>Reference English Language Arts<br/>CC.1.5.2.C</i>                                               | 15.3.5.I.<br>Demonstrate note taking and questioning skills.<br><br><i>Reference English Language Arts<br/>CC.1.5.2.C</i> | 15.3.8.I.<br>Distinguish between relevant and non-relevant information for note taking, questioning, or decision making.<br><br><i>Reference English Language Arts<br/>CC.1.5.9-10.C</i> | 15.3.12.I.<br>Synthesize information gathered from multiple sources (e.g., digital, print, face to face).                         |
|                                                                                                                                                                                  | 15.3.2.J.<br>Reproduce active listening techniques modeled by familiar adults.<br><br><i>Reference English Language Arts<br/>CC.1.5.2.C</i> | 15.3.5.J.<br>Demonstrate active listening techniques.                                                                     | 15.3.8.J.<br>Identify barriers to active listening (e.g., environmental, peer, time, and cultural distractions).                                                                         | 15.3.12.J.<br>Apply strategies to overcome barriers to active listening.                                                          |
| <b>Etiquette</b>                                                                                                                                                                 | 15.3.2.K.<br><i>Reference Student Interpersonal Skills<br/>16.3.K.B</i>                                                                     | 15.3.5.K.<br>Model appropriate verbal and non-verbal behaviors in various contexts.                                       | 15.3.8.K.<br>Determine the situational appropriateness of verbal and non-verbal behaviors.                                                                                               | 15.3.12.K.<br>Apply cultural mores to evaluate intent of verbal and non-verbal behaviors.                                         |
|                                                                                                                                                                                  | 15.3.2.L.<br>Identify role models in various contexts (real vs. fiction).                                                                   | 15.3.5.L.<br>Identify traits (e.g., personal boundaries, confidence) that contribute to positive role models.             | 15.3.8.L.<br>Describe the characteristics of positive role models for development of work ethic and leadership skills.                                                                   | 15.3.12.L.<br>Evaluate characteristics of positive role models and their contribution to the development of a professional image. |
|                                                                                                                                                                                  | 15.3.2.M.<br>With prompting and support, demonstrate proper etiquette while using technology.                                               | 15.3.5.M.<br>Apply proper etiquette when using technology.                                                                | 15.3.8.M.<br>Demonstrate proper etiquette when networking either face-to-face or online.                                                                                                 | 15.3.12.M.<br>Critique etiquette skills for building and maintaining a professional image.                                        |

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## GRADES Pre K-12

| <b>15.3 Communication</b>                                                                                                                                                        |                                                                                                                                                                      |                                                                                  |                                                                                                         |                                                                                                                                                  |
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| <b>15.3.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                                                                                      | <b>15.3.5.<br/>GRADE 3-5</b>                                                     | <b>15.3.8.<br/>GRADE 6-8</b>                                                                            | <b>15.3.12.<br/>GRADE 9-12</b>                                                                                                                   |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                                      |                                                                                  |                                                                                                         |                                                                                                                                                  |
|                                                                                                                                                                                  | 15.3.2.N.<br>Identify positive work habits in the classroom.                                                                                                         | 15.3.5.N.<br>Apply appropriate work ethic in the classroom.                      | 15.3.8.N.<br>Examine the impact of work ethic in various contexts.                                      | 15.3.12.N.<br>Demonstrate appropriate work ethic in the workplace, community, and classroom.                                                     |
| <b>Organizational Communication</b>                                                                                                                                              | 15.3.2.O.<br>With prompting and support, ask and answer questions about various communication strategies used in diverse settings (classroom, home or social event). | 15.3.5.O.<br>Discuss appropriate communication skills within organizations.      | 15.3.8.O.<br>Discuss types of communication skills (e.g., internal, external) in organizations.         | 15.3.12.O.<br>Identify the diverse communication skills necessary within an organization (e.g., customer relations, sales, management).          |
|                                                                                                                                                                                  | 15.3.2.P.<br>Intentionally Blank                                                                                                                                     | 15.3.5.P.<br>Intentionally Blank                                                 | 15.3.8.P.<br>Describe leadership communication skills necessary for goal setting and generating ideas.  | 15.3.12.P.<br>Demonstrate leadership communication skills through delegating, negotiating, goal setting, and generating ideas.                   |
|                                                                                                                                                                                  | 15.3.2.Q.<br>Intentionally Blank                                                                                                                                     | 15.3.5.Q.<br>Identify communication channels at school, home, and social events. | 15.3.8.Q.<br>Identify communication channels and their purpose in the business community.               | 15.3.12.Q.<br>Analyze communication channels and their effectiveness within the corporate culture.                                               |
|                                                                                                                                                                                  | 15.3.2.R.<br>Intentionally Blank                                                                                                                                     | 15.3.5.R.<br>Intentionally Blank                                                 | 15.3.8.R.<br>Discuss appropriate communication strategies between supervisors and <b>subordinates</b> . | 15.3.12.R.<br>Evaluate best practices of communication based on culture, practice, and laws related to supervising others in a corporate entity. |

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| 15.3 Communication                                                                                                                                                               |                                                                                                                                                                                    |                                                                                                                                                         |                                                                                                                                                 |                                                                                                                                                                                       |
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| 15.3.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                                                                                                                    | 15.3.5.<br>GRADE 3-5                                                                                                                                    | 15.3.8.<br>GRADE 6-8                                                                                                                            | 15.3.12.<br>GRADE 9-12                                                                                                                                                                |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                                                    |                                                                                                                                                         |                                                                                                                                                 |                                                                                                                                                                                       |
| Electronic Communication                                                                                                                                                         | 15.3.2.S.<br>With prompting and support, ask and answer questions about electronic communication.                                                                                  | 15.3.5.S.<br>Explain electronic communication options (e.g., formal vs. informal, time constraints, geographic location) based on the intended message. | 15.3.8.S.<br>Apply appropriate electronic communication based on message requirements.                                                          | 15.3.12.S.<br>Evaluate electronic communication options based on need.                                                                                                                |
|                                                                                                                                                                                  | 15.3.2.T.<br>With prompting and support, answer questions related to <b>digital citizenship</b> .<br><br><i>Reference Business, Computer and Information Technologies 15.4.2.B</i> | 15.3.5.T.<br>Explain the importance of <b>digital citizenship</b> .<br><br><i>Reference Business, Computer and Information Technologies 15.4.5.B</i>    | 15.3.8.T.<br>Discuss the rules of <b>digital citizenship</b> .<br><br><i>Reference Business, Computer and Information Technologies 15.4.8.B</i> | 15.3.12.T.<br>Demonstrate application of <b>digital citizenship</b> in work and personal situations.<br><br><i>Reference Business Computer and Information Technologies 15.4.12.B</i> |
|                                                                                                                                                                                  | 15.3.2.U.<br>Intentionally Blank                                                                                                                                                   | 15.3.5.U.<br>Intentionally Blank                                                                                                                        | 15.3.8.U.<br>Identify and employ various electronic communication options related to desired outcomes.                                          | 15.3.12.U.<br>Critique the effectiveness of various electronic communication options related to desired outcomes.                                                                     |
|                                                                                                                                                                                  | 15.3.2.V.<br>Intentionally Blank                                                                                                                                                   | 15.3.5.V.<br>Identify mobile communications used in various settings.                                                                                   | 15.3.8.V.<br>Describe varieties of mobile communication used within businesses and/or organizations.                                            | 15.3.12.V.<br>Evaluate how mobile communication impacts businesses or organizations.                                                                                                  |
|                                                                                                                                                                                  | 15.3.2.W.<br>Intentionally Blank                                                                                                                                                   | 15.3.5.W.<br>Intentionally Blank                                                                                                                        | 15.3.12.W.<br>Use electronic communication with peers and/or educators to produce a work product.                                               | 15.3.12.W.<br>Collaborate via electronic communication with peers, educators, and/or professionals to meet organizational goals.                                                      |

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| <b>15.3 Communication</b>                                                                                                                                                        |                                                                         |                                                                                 |                                                                       |                                                                                                          |
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| <b>15.3.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                         | <b>15.3.5.<br/>GRADE 3-5</b>                                                    | <b>15.3.8.<br/>GRADE 6-8</b>                                          | <b>15.3.12.<br/>GRADE 9-12</b>                                                                           |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                         |                                                                                 |                                                                       |                                                                                                          |
| <b>Diversity</b>                                                                                                                                                                 | 15.3.2.X.<br><i>Reference Student Interpersonal Skills<br/>16.2.K.B</i> | 15.3.5.X.<br>Identify diversity within groups and its effect on communications. | 15.3.8.X.<br>Demonstrate effective techniques for good communication. | 15.3.12.X.<br>Identify the diversity within a work group and the strategies for effective communication. |

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| <b>15.4 Computer and Information Technologies</b>                                                                                                                                |                                                                                                                                                  |                                                                                                                                                                                    |                                                                                                                 |                                                                                                                     |
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|                                                                                                                                                                                  | <b>15.4.2.<br/>GRADE Pre K-2</b>                                                                                                                 | <b>15.4.5.<br/>GRADE 3-5</b>                                                                                                                                                       | <b>15.4.8.<br/>GRADE 6-8</b>                                                                                    | <b>15.4.12.<br/>GRADE 9-12</b>                                                                                      |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                  |                                                                                                                                                                                    |                                                                                                                 |                                                                                                                     |
| <b>Influence of Emerging Technologies</b>                                                                                                                                        | 15.4.2.A.<br>Identify various technologies used in the classroom and at home.                                                                    | 15.4.5.A.<br>Identify emerging technologies used for educational and personal success.                                                                                             | 15.4.8.A.<br>Analyze the influence of emerging technologies on daily life.                                      | 15.4.12.A.<br>Apply the creative and productive use of emerging technologies for educational and personal success.  |
| <b>Digital Citizenship</b>                                                                                                                                                       | 15.4.2.B.<br>Demonstrate responsible use of technology and equipment.                                                                            | 15.4.5.B.<br>Identify and demonstrate understanding of ethical, safe, and social online behavior and potential consequences of unethical, unsafe, and inappropriate behavior.      | 15.4.8.B.<br>Interpret and apply appropriate social, legal, ethical, and safe behaviors of digital citizenship. | 15.4.12.B.<br>Evaluate the impact of social, legal, ethical, and safe behaviors on digital citizenship.             |
| <b>Hardware</b>                                                                                                                                                                  | 15.4.2.C.<br>With prompting and support, identify <b>peripheral devices</b> of computer system including <b>input</b> and <b>output</b> devices. | 15.4.5.C.<br>Describe the purpose, use, and care of <b>peripheral devices</b> of computer systems including <b>input</b> , <b>processing</b> , storage, and <b>output</b> devices. | 15.4.8.C.<br>Compare and contrast peripheral devices of computing systems for specific needs.                   | 15.4.12.C.<br>Develop criteria for analyzing hardware options to meet defined needs.                                |
| <b>Input Technologies</b>                                                                                                                                                        | 15.4.2.D.<br>Demonstrate the correct use of simple input technologies (e.g., mouse, touch screen, microphone, etc.).                             | 15.4.5.D.<br>Demonstrate the ergonomically correct use of more sophisticated input technologies.                                                                                   | 15.4.8.D.<br>Create projects using emerging input technologies.                                                 | 15.4.12.D.<br>Evaluate emerging input technologies.                                                                 |
| <b>Operating Systems</b>                                                                                                                                                         | 15.4.2.E.<br>Intentionally Blank                                                                                                                 | 15.4.5.E.<br>Intentionally Blank                                                                                                                                                   | 15.4.8.E.<br>Explain the different operating systems.                                                           | 15.4.12.E.<br>Analyze the different operating systems and recommend the appropriate system for specific user needs. |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.4 Computer and Information Technologies</b>                                                                                                                                |                                                                                                                                |                                                                                                    |                                                                                                               |                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                  | <b>15.4.2.<br/>GRADE Pre K-2</b>                                                                                               | <b>15.4.5.<br/>GRADE 3-5</b>                                                                       | <b>15.4.8.<br/>GRADE 6-8</b>                                                                                  | <b>15.4.12.<br/>GRADE 9-12</b>                                                                                              |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                |                                                                                                    |                                                                                                               |                                                                                                                             |
| <b>Networking</b>                                                                                                                                                                | 15.4.2.F.<br>Intentionally Blank                                                                                               | 15.4.5.F.<br>Intentionally Blank                                                                   | 15.4.8.F.<br>Identify network communication technologies.                                                     | 15.4.12.F.<br>Compare and contrast network environments, including the function of network devices and connectivity issues. |
| <b>Software / Applications</b>                                                                                                                                                   | 15.4.2.G.<br>With help and support, select and use various software/applications for an intended purpose.                      | 15.4.5.G<br>Create a digital project using appropriate software/application for an authentic task. | 15.4.8.G.<br>Create an advanced digital project using appropriate software/application for an authentic task. | 15.4.12.G.<br>Create an advanced digital project using sophisticated design and appropriate software/applications.          |
| <b>Programming</b>                                                                                                                                                               | 15.4.2.H.<br>Intentionally Blank                                                                                               | 15.4.5.H.<br>Intentionally Blank                                                                   | 15.4.8.H.<br>Explain the differences between a scripting language and a coding language.                      | 15.4.12.H.<br>Use programming languages to develop logical thinking and problem solving skills.                             |
|                                                                                                                                                                                  | 15.4.5.I.<br>Intentionally Blank                                                                                               | 15.4.5.I.<br>Intentionally Blank                                                                   | 15.4.8.I.<br>Solve a problem with an algorithm.                                                               | 15.4.8.I.<br>Compare and contrast programming languages; select most appropriate one to complete a specific task.           |
|                                                                                                                                                                                  | 15.4.5.J.<br>Intentionally Blank                                                                                               | 15.4.5.J.<br>Intentionally Blank                                                                   | 15.4.8.J.<br>Explain the basic differences between <b>encoding</b> and <b>decoding</b> .                      | 15.4.8.J.<br>Create a complex computer program to solve a problem.                                                          |
| <b>Digital Media</b>                                                                                                                                                             | 15.4.2.K.<br>With help and support, identify similarities and differences between text, graphics, audio, animation, and video. | 15.4.5.K.<br>Use digital media to enhance a content-specific work product.                         | 15.4.8.K.<br>Create a multimedia project using student-created digital media.                                 | 15.4.12.K.<br>Evaluate advanced multimedia work products and make recommendations based on the evaluation.                  |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.4 Computer and Information Technologies                                                                                                                                       |                                                                                                         |                                                                                   |                                                                                                                    |                                                                                                                                                             |
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| 15.4.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                                         | 15.4.5.<br>GRADE 3-5                                                              | 15.4.8.<br>GRADE 6-8                                                                                               | 15.4.12.<br>GRADE 9-12                                                                                                                                      |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                         |                                                                                   |                                                                                                                    |                                                                                                                                                             |
| Technology Research                                                                                                                                                              | 15.6.2.L.<br>With help and support, use <b>web browser</b> to locate content-specific <b>websites</b> . | 15.6.5.L.<br>Discuss the characteristics of a credible <b>website</b> .           | 15.6.8.L.<br>Evaluate the accuracy and bias of online sources of information; appropriately cite online resources. | 15.6.12.L.<br>Find and use primary documentation; employ an accepted protocol for citation.                                                                 |
| Emerging Technologies in Careers                                                                                                                                                 | 15.6.2.M.<br>With help and support, identify various technologies used in the workplace.                | 15.6.5.M.<br>Discuss the impact of emerging technologies on a variety of careers. | 15.6.8.M.<br>Explore and describe how emerging technologies are used across different career paths.                | 15.6.12.M.<br>Evaluate the impact of emerging technologies on various career paths and provide examples of <b>industry certifications</b> within the field. |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.5. Entrepreneurship                                                                                                                                                           |                                                                                                                                                                             |                                                                                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                  | 15.5.2.<br>GRADE Pre K-2                                                                                                                                                    | 15.5.5.<br>GRADE 3-5                                                                                                 | 15.5.8.<br>GRADE 6-8                                                                                                                                                                                              | 15.5.12.<br>GRADE 9-12                                                                                                                                                                                                                    |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                                                                             |                                                                                                                      |                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
| The Entrepreneur                                                                                                                                                                 | 15.5.2.A.<br>Identify people in the community who own a business.                                                                                                           | 15.5.5.A.<br>Define the qualities of an entrepreneur.                                                                | 15.5.8.A.<br>Explore pathways to becoming an <i>entrepreneur</i> .                                                                                                                                                | 15.5.12.A.<br>Analyze personal choices in preparation for <i>entrepreneurship</i> .                                                                                                                                                       |
|                                                                                                                                                                                  | 15.5.2.B.<br>With prompting and support, list skills needed to run your own business (lemonade stand, etc.).<br><br><i>Reference Career Education and Work 13.4.3 A - B</i> | 15.5.5.B.<br>Define the skill set of an entrepreneur.<br><br><i>Reference Career Education and Work 13.4.5 A - B</i> | 15.5.8.B.<br>Identify management and organizational skills needed for entrepreneurship.<br><br><i>Reference Career Education and Work 13.4.8 A - B</i>                                                            | 15.5.12.B.<br>Evaluate personal management and organizational abilities to succeed in entrepreneurship.<br><br><i>Reference Career Education and Work 13.4.12 A - B</i>                                                                   |
| Entrepreneurs in the Domestic Economy                                                                                                                                            | 15.5.2.C.<br>Intentionally Blank                                                                                                                                            | 15.5.5.C.<br>Discuss differences and similarities between an entrepreneurship and a corporation.                     | 15.5.8.C.<br><i>Reference Economics 6.5.12.F.</i>                                                                                                                                                                 | 15.5.12.C.<br>Analyze the impact of entrepreneurship in the domestic economy.                                                                                                                                                             |
|                                                                                                                                                                                  | 15.5.2.D.<br>With prompting and support, name local small business owners in your community.                                                                                | 15.5.5.D.<br>Discuss traditional entrepreneurships and the pros and cons of being one's own boss.                    | 15.5.8.D.<br>Compare and contrast entrepreneurship in emerging fields, (e.g., social media, online business, alternative energy sources and uses, agriculture and industrial) with traditional entrepreneurships. | 15.5.12.D.<br>Create a business plan using appropriate data to support the business concept.                                                                                                                                              |
|                                                                                                                                                                                  | 15.5.2.E.<br>Intentionally Blank                                                                                                                                            | 15.5.5.E.<br><i>Reference Economic 6.5.8.F</i>                                                                       | 15.5.8.E.<br>Intentionally Blank                                                                                                                                                                                  | 15.5.12.E.<br>Evaluate legal forms of business entities when considering entrepreneurship (e.g., existing business, <b>franchise</b> , new business, <b>corporation</b> , <b>LLC</b> , <b>partnership</b> , <b>sole proprietorship</b> ). |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.5. Entrepreneurship</b>                                                                                                                                                    |                                  |                                                                        |                                                                                                            |                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>15.5.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                  | <b>15.5.5.<br/>GRADE 3-5</b>                                           | <b>15.5.8.<br/>GRADE 6-8</b>                                                                               | <b>15.5.12.<br/>GRADE 9-12</b>                                                                                                                                        |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                                                        |                                                                                                            |                                                                                                                                                                       |
| <b>Entrepreneurs in the Global Economy</b>                                                                                                                                       | 15.5.2.F.<br>Intentionally Blank | 15.5.5.F.<br>Identify global businesses in the local or state economy. | 15.5.8.F.<br>Identify interconnectivity of global and local business operating in the local/state economy. | 15.5.12.F.<br>Research the opportunities for local entrepreneurship in the global economy and discuss the impact of government regulations.                           |
|                                                                                                                                                                                  | 15.5.2.G.<br>Intentionally Blank | 15.5.5.G.<br>Intentionally Blank                                       | 15.5.8.G.<br>Identify the impact of global business on pricing for local entrepreneurs.                    | 15.5.12.G.<br>Analyze factors affecting global pricing including international currency fluctuations, <i>tariffs</i> , price controls, and anti-dumping laws.         |
|                                                                                                                                                                                  | 15.5.2.H.<br>Intentionally Blank | 15.5.5.H.<br>Intentionally Blank                                       | 15.5.8.H.<br>Identify entrepreneurial opportunities in the global economy.                                 | 15.5.12.H.<br>Assess advantages and disadvantages for entrepreneurial business in foreign markets; including language and trade barriers, marketing, and regulations. |
| <b>Business Foundations</b>                                                                                                                                                      | 15.5.2.I.<br>Intentionally Blank | 15.5.5. I.<br>Identify the functions of a business operation.          | 15.5.8.I.<br>Compare and contrast the various functions of operations management.                          | 15.5.12.I.<br>Evaluate the functions of operations management as influenced by the business parameters.                                                               |
|                                                                                                                                                                                  | 15.5.2.J.<br>Intentionally Blank | 15.5.5.J.<br>Intentionally Blank                                       | 15.5.8. J.<br>Define the impact of <b>emerging technologies</b> on business management.                    | 15.5.12.J.<br>Evaluate strategies for incorporating emerging technologies into specific business operations.                                                          |
|                                                                                                                                                                                  | 15.5.2.K.<br>Intentionally Blank | 15.5.5.K.<br>Intentionally Blank                                       | 15.5.8.K.<br>Identify government agencies and regulations that impact business.                            | 15.5.12.K.<br>Analyze issues and cases associated with government regulation.                                                                                         |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.5. Entrepreneurship                                                                                                                                                           |                                                                                                 |                                                                                              |                                                                                                |                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.5.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                                 | 15.5.5.<br>GRADE 3-5                                                                         | 15.5.8.<br>GRADE 6-8                                                                           | 15.5.12.<br>GRADE 9-12                                                                                                                                            |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                 |                                                                                              |                                                                                                |                                                                                                                                                                   |
| Innovation / Opportunity in Entrepreneurship                                                                                                                                     | 15.5.2.L.<br>Intentionally Blank<br><br><i>Reference Career Education and Work 13.4.3 A - B</i> | 15.5.5.L.<br><i>Reference Economics 6.1.5.A - D; Career Education and Work 13.4.5. A - B</i> | 15.5.8. L.<br><i>Reference Economics 6.1.12.A - D; Career Education and Work 13.4.8. A - B</i> | 15.5.12. L.<br>Analyze an innovation/ business concept and develop a comprehensive business plan.<br><br><i>Reference Career Education and Work 13.4.12 A - B</i> |
|                                                                                                                                                                                  | 15.5.2.M.<br>Intentionally Blank                                                                | 15.5.5.M.<br>Intentionally Blank                                                             | 15.5.8.M.<br><i>Reference Career Education and Work 13.4.11.C</i>                              | 14.5.12.M.<br>Analyze funding sources for an entrepreneurship including, <b>IPO, venture capital</b> , loans, and owner capital.                                  |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.6. Finance and Economics                                                                                                                                                      |                                                                                            |                                                                                                          |                                                                                                                                                      |                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.6.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                            | 15.6.5.<br>GRADE 3-5                                                                                     | 15.6.8.<br>GRADE 6-8                                                                                                                                 | 15.6.12.<br>GRADE 9-12                                                                                                                                                                |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                            |                                                                                                          |                                                                                                                                                      |                                                                                                                                                                                       |
| Personal Finance Responsibility                                                                                                                                                  | 15.6.2.A.<br>With prompting and support, discuss the difference between a need and a want. | 15.6.5.A.<br><i>Reference Economics 6.1.5.A - D</i>                                                      | 15.6.8.A.<br><i>Reference Economics 6.1.12.A - D</i>                                                                                                 | 15.6.12.A.<br>Evaluate the impact of internal and external influences on financial decisions.                                                                                         |
|                                                                                                                                                                                  | 15.6.2.B.<br>Ask and answer questions about a monetary decision.                           | 15.6.5.B.<br>Identify the steps taken when making a <b>rational</b> decision about money.                | 15.6.8.B.<br>Discuss the importance of developing short-, medium-, and long-term personal financial goals.                                           | 15.6.12.B.<br>Analyze financial decisions for major purchasing events occurring at different stages in life, systematically considering <b>alternatives</b> and <b>consequences</b> . |
|                                                                                                                                                                                  | 15.6.2.C.<br>Intentionally Blank                                                           | 14. 4.5.C.<br><i>Reference Family and Consumer Sciences 11.1.3.B; Career Education and Work 13.3.5.D</i> | 14. 4.8.C.<br><i>Reference Career Education and Work 13.3.8.D</i>                                                                                    | 15.6.12.C.<br><i>Reference Career Education and Work 13.3.11.D</i>                                                                                                                    |
|                                                                                                                                                                                  | 15.6.2.D.<br>Intentionally Blank                                                           | 15.6.5.D.<br>Identify sources of income.                                                                 | 15.6.8.D.<br>Identify employee benefits and their impact on income.                                                                                  | 15.6.12.D.<br>Develop criteria to evaluate employment options.                                                                                                                        |
|                                                                                                                                                                                  | 15.6.2.E.<br>Intentionally Blank                                                           | 15.6.5.E.<br>Intentionally Blank                                                                         | 15.6.8.E.<br>Explain the difference between sales and income tax.<br><br><i>Reference Family and Consumer Sciences 11.1.12.E; Economics 6.5.12.A</i> | 15.6.12.E.<br>Assess the purpose, source, and impact of various taxes.                                                                                                                |
|                                                                                                                                                                                  | 15.6.2.F.<br>Intentionally Blank                                                           | 15.6.5.F.<br>Intentionally Blank                                                                         | 15.6.8.F.<br>Evaluate assets as related to personal wealth and spending.                                                                             | 15.6.12.F.                                                                                                                                                                            |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.6. Finance and Economics</b>                                                                                                                                               |                                                                                                          |                                                                                    |                                                                                                                                         |                                                                                                                                        |
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| <b>15.6.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                          | <b>15.6.5.<br/>GRADE 3-5</b>                                                       | <b>15.6.8.<br/>GRADE 6-8</b>                                                                                                            | <b>15.6.12.<br/>GRADE 9-12</b>                                                                                                         |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                          |                                                                                    |                                                                                                                                         |                                                                                                                                        |
| <b>Money Management / Credit and Debt</b>                                                                                                                                        | 15.6.2.G.<br>Intentionally Blank<br><br><i>Reference Career Education and Work 13.3.2.G</i>              | 15.6.5.G.<br>Discuss earnings, spending, and savings for financial stability.      | 15.6.8.G.<br>Discuss the need for money management.                                                                                     | 15.6.12.G.<br>Identify strategies for personal financial management.                                                                   |
|                                                                                                                                                                                  | 15.6.2.H.<br>Intentionally Blank                                                                         | 15.6.5.H.<br>Explain various payment methods.                                      | 15.6.8.H.<br>Compare and contrast advantages and disadvantages of various options of paying for short- and long-term purchases.         | 15.6.12.H.<br>Evaluate payment methods for major purchases.                                                                            |
|                                                                                                                                                                                  | 15.6.2.I.<br>Intentionally Blank                                                                         | 15.6.5.I.<br>Describe different types of financial institutions in your community. | 15.6.8.I.<br>Compare advantages and disadvantages of different financial institutions relating to saving, investing, and borrowing.     | 15.6.12.I.<br>Analyze the functions of the Federal Reserve and other financial institutions.                                           |
|                                                                                                                                                                                  | 15.6.2.J.<br>With prompting and support, ask and answer questions about borrowing and paying back money. | 15.6.5.J.<br>Explain interest charged versus interest earned.                      | 15.6.8.J.<br>Explain the difference between simple and compound interest.<br><br><i>Reference Family and Consumer Sciences 11.1.9.B</i> | 15.6.12.J.<br>Analyze the total cost of a major purchase loan agreement using fixed and variable interest rates, calculated over time. |
|                                                                                                                                                                                  | 15.6.2.K.<br>Intentionally Blank                                                                         | 15.6.5.K.<br>Discuss factors that impact one's ability to borrow money.            | 15.6.8.K.<br>Investigate factors that contribute to a positive or negative credit history.                                              | 15.6.12.K.<br>Analyze the impact of a positive or negative credit history.                                                             |
|                                                                                                                                                                                  | 15.6.2.L.<br>Intentionally Blank                                                                         | 15.6.5.L.<br>Intentionally Blank                                                   | 15.6.8.L.<br>Analyze the components and value of credit reports for consumers, borrowers and lenders.                                   | 15.6.12.L.<br>Research major consumer credit laws and their impact on individuals in debt.                                             |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.6. Finance and Economics                                                                                                                                                      |                                                                                                                       |                                                                                        |                                                                                  |                                                                                                                                                                                                             |
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| 15.6.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                                                       | 15.6.5.<br>GRADE 3-5                                                                   | 15.6.8.<br>GRADE 6-8                                                             | 15.6.12.<br>GRADE 9-12                                                                                                                                                                                      |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                       |                                                                                        |                                                                                  |                                                                                                                                                                                                             |
|                                                                                                                                                                                  | 15.6.2.M.<br>Intentionally Blank                                                                                      | 15.6.5.M.<br>Discuss potential <i>consequences</i> of disclosing personal information. | 15.6.8.M.<br>Examine steps to minimize exposure to <i>identity theft</i> .       | 15.6.12.M.<br>Assess the impact of identity theft; develop a plan for correcting a negative credit report.                                                                                                  |
| Risk Management and Insurance                                                                                                                                                    | 15.6.2.N.<br>With prompting and support, ask and answer questions about items of value that could be lost or damaged. | 15.6.5.N.<br>Discuss methods to protect valuable items against damage or loss.         | 15.6.8.N.<br>Examine the purpose and importance of various types of insurances.  | 15.6.12.N.<br>Compare and contrast various suppliers of insurance products and develop criteria to evaluate individual insurance needs.                                                                     |
|                                                                                                                                                                                  | 15.6.2.O.<br>Intentionally Blank                                                                                      | 15.6.5.O.<br>Intentionally Blank                                                       | 15.6.8.O.<br>Intentionally Blank                                                 | 15.6.12.O.<br>Develop criteria for a disaster management plan that includes provisions for secure storage of digital and paper documents, inventory of household items, cash reserves, and medical records. |
| Saving and Investing                                                                                                                                                             | 15.6.2.P.<br><i>Reference Economics 6.5.3.G</i>                                                                       | 15.6.5.P.<br><i>Reference Economics 6.5.5.G</i>                                        | 15.6.8.P.<br><i>Reference Economics 6.5.12.G - H</i>                             | 15.6.12.P.<br>Develop financial investment plans to accommodate various economic and personal scenarios.                                                                                                    |
|                                                                                                                                                                                  | 15.1.2.Q.<br>Intentionally Blank                                                                                      | 15.6.5.Q.<br>Discuss the purpose and function of investments.                          | 15.6.8.Q.<br>Calculate investment growth using varying rates of return.          | 15.6.12.Q.<br>Apply the "Rule of 72" to estimate the number of periods required to double an investment.                                                                                                    |
|                                                                                                                                                                                  | 15.6.2.R.<br>Intentionally Blank                                                                                      | 15.6.5.R.<br>Discuss investments and how they can grow in value.                       | 15.6.8.R.<br>Evaluate the benefits of a <i>diversified</i> investment portfolio. | 15.6.12.R.<br>Compare and contrast various investment plans to achieve goals of liquidity, income, and growth.                                                                                              |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.6. Finance and Economics</b>                                                                                                                                               |                                  |                                  |                                  |                                                                                                     |
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| <b>15.6.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                  | <b>15.6.5.<br/>GRADE 3-5</b>     | <b>15.6.8.<br/>GRADE 6-8</b>     | <b>15.6.12.<br/>GRADE 9-12</b>                                                                      |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                  |                                  |                                                                                                     |
|                                                                                                                                                                                  | 15.6.2.S.<br>Intentionally Blank | 15.6.5.S.<br>Intentionally Blank | 15.6.8.S.<br>Intentionally Blank | 15.6.12.S.<br>Analyze the role of government in <i>investment planning</i> and retirement planning. |

# Business, Computer and Information Technology Standards

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| 15.7. Global Business                                                                                                                                                            |                                                                                             |                                                                                                        |                                                                                                                                                                             |                                                                                                                                                                                                                 |
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| 15.7.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                             | 15.7.5.<br>GRADE 3-5                                                                                   | 15.7.8.<br>GRADE 6-8                                                                                                                                                        | 15.7.12.<br>GRADE 9-12                                                                                                                                                                                          |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                             |                                                                                                        |                                                                                                                                                                             |                                                                                                                                                                                                                 |
| Global Literacy                                                                                                                                                                  | 15.7.2.A.<br>Intentionally Blank                                                            | 15.7.5.A.<br>Identify <b>global</b> and <b>domestic</b> business and products.                         | 15.7.8.A.<br>Trace and discuss the effect of international trade on the U.S. throughout history.                                                                            | 15.7.12.A.<br>Assess the impact of political and economic changes on global business.                                                                                                                           |
|                                                                                                                                                                                  | 15.7.2.B.<br>With prompting and support, identify products manufactured in other countries. | 15.7.5.B.<br>Identify businesses in the community that trade products and/or services internationally. | 15.7.8.B.<br>Identify barriers (time zones, transportation, language, regulations, social customs) to international trade and determine how these barriers can be overcome. | 15.7.12.B.<br>Evaluate logistical considerations of operating an international business (e.g., integration of information, transportation, inventory, warehousing, material handling, packaging, and security). |
|                                                                                                                                                                                  | 15.7.2.C.<br>Intentionally Blank                                                            | 15.7.5.C.<br>Intentionally Blank                                                                       | 15.7.8.C.<br>Explain how current global events impact the business climate.                                                                                                 | 15.7.12.C.<br>Examine business <b>protocol</b> of several countries as related to social customs, business customs, and political environment.                                                                  |
| Government and Legal Systems                                                                                                                                                     | 15.7.2.D.<br>Intentionally Blank                                                            | 15.7.5.D<br>Intentionally Blank                                                                        | 15.7.8.D.<br>Explain the advantages and disadvantages of different types of governments on business.                                                                        | 15.7.12.D.<br>Analyze how political environments affect international business.                                                                                                                                 |
|                                                                                                                                                                                  | 15.7.2.E.<br>Intentionally Blank                                                            | 15.7.5.E.<br>Discuss laws in the U.S. that promote <b>free enterprise</b> .                            | 15.7.8.E.<br>Compare legal structure and laws of other countries as they relate to global business.<br><br><i>Reference Economics 6.3.8.D</i>                               | 15.7.12.E.<br>Examine the legal requirements (foreign and domestic) of operating a business.                                                                                                                    |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.7. Global Business</b>                                                                                                                                                     |                                                                                                                           |                                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>15.7.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                                           | <b>15.7.5.<br/>GRADE 3-5</b>                                                                                                                       | <b>15.7.8.<br/>GRADE 6-8</b>                                                                                                              | <b>15.7.12.<br/>GRADE 9-12</b>                                                                                                                                                                             |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                           |                                                                                                                                                    |                                                                                                                                           |                                                                                                                                                                                                            |
| <b>Global Economics</b>                                                                                                                                                          | 15.7.2.F.<br>Intentionally Blank                                                                                          | 15.7.5. F.<br>Intentionally Blank                                                                                                                  | 15.7.8.F.<br>Identify economic indicators that define the health of a nation's businesses.                                                | 15.7.12.F.<br>Examine economic issues in a country that engages in international business activities.                                                                                                      |
|                                                                                                                                                                                  | 15.7.2.G.<br>Intentionally Blank                                                                                          | 15.7.5.G.<br>Intentionally Blank                                                                                                                   | 15.7.8.G<br>Classify products and services as imports or exports.                                                                         | 15.7.12.G<br>Analyze global businesses and the impact on the countries where they operate.                                                                                                                 |
|                                                                                                                                                                                  | 15.7.2.H<br>Intentionally Blank                                                                                           | 15.7.5.H.<br>Describe resources used for business in the domestic and global economy.                                                              | 15.7.8.H.<br>Compare and contrast the efficient use of natural and human resources and the impact on participation in the global economy. | 15.7.12.H.<br>Analyze the effect of efficiencies in natural and human resources as it relates to global business relationships.                                                                            |
| <b>Global Communication</b>                                                                                                                                                      | 15.7.2.I.<br>Ask and answer questions to demonstrate understanding that communication differs across the globe.           | 15.7.5.I.<br>Identify how misunderstandings occur when speaking, writing, or incorrectly interpreting language.                                    | 15.7.8.I.<br>Analyze the impact of tone, style, and language in sending and receiving communications.                                     | 15.7.12.I.<br>Identify and examine effective global business communications strategies.                                                                                                                    |
|                                                                                                                                                                                  | 15.7.2.J<br>Intentionally Blank                                                                                           | 15.7.5.J.<br>Identify non-verbal behaviors and their impact on communication.                                                                      | 15.7.8.J.<br>Explain the importance of non-verbal behaviors on cultural business relationships.                                           | 15.7.12.J.<br>Compare and contrast various nonverbal behaviors and their impact on business in a global environment.                                                                                       |
| <b>Global Responsibility</b>                                                                                                                                                     | 15.7.2.K<br>With prompting and support, provide examples of responsible behavior related to the use of natural resources. | 15.7.5.K<br>Explain how the responsible use of natural resources benefits the individual; the family; and local, national, and global communities. | 15.7.8.K<br>Discuss ethical business conduct and identify how companies may act in a globally responsible manner.                         | 15.7.12.K<br>Analyze how economic and environmental factors may conflict; explain how responsible behavior can help sustain natural and human communities at local, regional, national, and global levels. |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.7. Global Business</b>                                                                                                                                                     |                                  |                                                                                                 |                                                                                            |                                                                                                             |
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| <b>15.7.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                  | <b>15.7.5.<br/>GRADE 3-5</b>                                                                    | <b>15.7.8.<br/>GRADE 6-8</b>                                                               | <b>15.7.12.<br/>GRADE 9-12</b>                                                                              |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                                                                                 |                                                                                            |                                                                                                             |
| <b>Global<br/>Decision<br/>Making</b>                                                                                                                                            | 15.7.2.L.<br>Intentionally Blank | 15.7.5.L.<br>Explain why business organizations should be constantly aware of external changes. | 15.7.8.L.<br>Explain how historic international relationships impact current business.     | 15.7.12.L.<br>Identify worldviews and their impact on global business.                                      |
| <b>Global<br/>Business<br/>Opportunity</b>                                                                                                                                       | 15.7.2.M.<br>Intentionally Blank | 15.7.5.M.<br>Identify countries that produce or specialize in a particular product or industry. | 15.7.8.M.<br>Investigate resources, agencies, and organizations that promote global trade. | 15.7.12.M.<br>Identify strategies employed to promote global business opportunities.                        |
| <b>Global<br/>Marketing</b>                                                                                                                                                      | 15.7.2.N.<br>Intentionally Blank | 15.7.5.N.<br>Intentionally Blank                                                                | 15.7.8.N.<br>Intentionally Blank                                                           | 15.7.12.N.<br>Identify business strategies related to international marketing.                              |
| <b>Global<br/>Finance</b>                                                                                                                                                        | 15.7.2.O.<br>Intentionally Blank | 15.7.5.O.<br><i>Reference Economics 6.4.3.B, 6.4.4.B, 6.4.5.B, 6.4.5.C</i>                      | 15.7.8.O.<br><i>Reference Economics 6.3.6.D, 6.3.7.D, 6.3.8.D, 6.4.8.C, 6.4.8.E</i>        | 15.7.12.O.<br><i>Reference Economics 6.3.9.D, 6.3.12.D, 6.4.9.B, 6.4.9.C., 6.4.12 B, 6.4.12.C, 6.4.12.D</i> |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.8 Management                                                                                                                                                                  |                                                                                                                      |                                                                                         |                                                                                                                                                                |                                                                                                                                                              |
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| 15.8.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                                                      | 15.8.5.<br>GRADE 3-5                                                                    | 15.8.8.<br>GRADE 6-8                                                                                                                                           | 15.8.12.<br>GRADE 9-12                                                                                                                                       |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                                      |                                                                                         |                                                                                                                                                                |                                                                                                                                                              |
| Organization and Characteristics of Business                                                                                                                                     | 15.8.2.A.<br>Ask and answer questions about the different businesses and jobs in the community.                      | 15.8.5.A.<br>Identify the expansion and decline of businesses in the community.         | 15.8.8.A.<br>Explain how economic growth and decline impact business.                                                                                          | 15.8.12.A.<br>Predict and chart trends that show how future economic growth/decline impacts business.                                                        |
|                                                                                                                                                                                  | 15.8.2.B.<br>Intentionally Blank                                                                                     | 15.8.5.B.<br>Identify the different forms of business ownership in the local community. | 15.8.8.B.<br>Explain the characteristics of different forms of business ownership, such as <b>sole proprietorship, partnership, and corporation.</b>           | 15.8.12.B.<br>Analyze the costs and benefits of organizing a business as a <b>sole proprietorship, partnership, or corporation.</b>                          |
|                                                                                                                                                                                  | 15.8.2.C.<br>Ask and answer questions about right and wrong (ethics) in the classroom.                               | 15.8.5.C.<br>Explain the importance of ethical behavior in various situations.          | 15.8.8.C.<br>Discuss ethical and unethical behaviors and their impact on business and organizations.<br><br><i>Reference Economics 6.5.8.C</i>                 | 15.8.12.C.<br>Critique major social and ethical decisions made by business and organizations throughout history.<br><br><i>Reference Economics 6.5.12.C</i>  |
| Management Functions                                                                                                                                                             | 15.8.2.D.<br>With prompting and support, engage in project planning and completion.                                  | 15.8.5.D.<br>Identify the process for planning and completing a project.                | 15.8.8.D.<br>Discuss the function of mission, vision, goals, and objectives within a business plan.<br><br><i>Reference Career Education and Work 13.4.8.C</i> | 15.8.12.D.<br>Analyze the effectiveness of a business plan for setting and achieving objectives.<br><br><i>Reference Career Education and Work 13.4.11.C</i> |
|                                                                                                                                                                                  | 15.8.2.E.<br>With prompting and support, ask and answer questions about roles and functions of managers and workers. | 15.8.5.E.<br>Explain the need for management hierarchy in a business.                   | 15.8.8.E.<br>Identify business management styles (e.g., autocratic, democratic, laissez-faire) used in a business or organization.                             | 15.8.12.E.<br>Evaluate how businesses are organized to achieve desired goals.                                                                                |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.8 Management</b>                                                                                                                                                           |                                                                                                      |                                                                               |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                        |
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| <b>15.8.2.<br/>GRADE Pre K-2</b>                                                                                                                                                 |                                                                                                      | <b>15.8.5.<br/>GRADE 3-5</b>                                                  | <b>15.8.8.<br/>GRADE 6-8</b>                                                                                                                                                                                                                                     | <b>15.8.12.<br/>GRADE 9-12</b>                                                                                                                                                                                                                                         |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                      |                                                                               |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                        |
|                                                                                                                                                                                  | 15.8.2.F.<br>Ask and answer questions about right and wrong (ethics) in the classroom.               | 15.8.5.F.<br>Discuss techniques to manage individuals or businesses.          | 15.8.8.F.<br>Discuss strategies to motivate and compensate employees.                                                                                                                                                                                            | 15.8.12.F.<br>Critique business strategies designed to balance the needs of the business with the work force.                                                                                                                                                          |
|                                                                                                                                                                                  | 15.8.2.G.<br>Identify leaders in your school and community; define their roles.                      | 15.8.5.G.<br>Discuss characteristics of good leaders.                         | 15.8.8.G.<br>Compare and contrast leadership styles.                                                                                                                                                                                                             | 15.8.12.G.<br>Analyze leadership skills necessary for leading at various management levels.                                                                                                                                                                            |
|                                                                                                                                                                                  | 15.8.2.H.<br>Intentionally Blank                                                                     | 15.8.5.H.<br>Explain strategies designed to motivate individuals.             | 15.8.8.H.<br>Compare and contrast motivational theories used in a business or organization.                                                                                                                                                                      | 15.8.12.H.<br>Analyze motivational theories and their application in a business or organization.                                                                                                                                                                       |
| <b>Management Skills</b>                                                                                                                                                         | 15.8.2.I.<br>Identify communication skills necessary for successful interacting with others.         | 15.8.5.I.<br>Identify communication skills necessary for success as a leader. | 15.8.8.I.<br>Demonstrate communication skills necessary for success within an organization.<br><br><i>Reference Economics 6.5.8.D; Health, Safety, and Physical Education 10.3.6.C; Career Education and Work 13.3.8.C; Student Interpersonal Skills SIS 2.D</i> | 15.8.12.I.<br>Analyze and select appropriate managerial communication skills based upon context.<br><br><i>Reference Economics 6.5.9.D; Health, Safety, and Physical Education 10.3.9.C; Career Education and Work 13.3.11.C; Student Interpersonal Skills SIS 2.D</i> |
|                                                                                                                                                                                  | 15.8.2.J.<br>With prompting and support, identify technologies used to help schools run efficiently. | 15.8.5.J.<br>Identify technology tools used by business management.           | 15.8.8.J.<br>Explain how technology tools are used in business management.                                                                                                                                                                                       | 15.8.12.J.<br>Analyze the use and purpose of various technology tools used by management.                                                                                                                                                                              |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.8 Management                                                                                                                                                                  |                                  |                                  |                                                                                                 |                                                                                                                                                                                                                                                                                     |
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| 15.8.2.<br>GRADE Pre K-2                                                                                                                                                         |                                  | 15.8.5.<br>GRADE 3-5             | 15.8.8.<br>GRADE 6-8                                                                            | 15.8.12.<br>GRADE 9-12                                                                                                                                                                                                                                                              |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                  |                                                                                                 |                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                  | 15.8.2.K.<br>Intentionally Blank | 15.8.5.K.<br>Intentionally Blank | 15.8.8.K.<br>Discuss the benefits of lifelong learning on career growth.                        | 15.8.12.K.<br>Design a career plan that incorporates personal interests, education, and societal trends, as related to lifelong learning in the changing global environment.                                                                                                        |
| Human Resource Management                                                                                                                                                        | 15.8.2.L.<br>Intentionally Blank | 15.8.5.L.<br>Intentionally Blank | 15.8.8.L.<br>Intentionally Blank                                                                | 15.8.12.L.<br>Explain the purpose and activities of a human resource department in a business or organization.                                                                                                                                                                      |
|                                                                                                                                                                                  | 15.8.2.M.<br>Intentionally Blank | 15.8.5.M.<br>Intentionally Blank | 15.8.8.M.<br>Describe the interview and selection process for applicants in various businesses. | 15.8.12.M.<br>Evaluate selection criteria for a position in a business or organization.                                                                                                                                                                                             |
|                                                                                                                                                                                  | 15.8.2.N.<br>Intentionally Blank | 15.8.5.N.<br>Intentionally Blank | 15.8.8.N.<br>Intentionally Blank                                                                | 15.8.12.N.<br>Analyze existing federal, state and local legislation (such as <b>harassment</b> , employee rights, <b>privacy</b> , <b>discrimination</b> , substance abuse) as related to <b>recruitment</b> , selection, retention of employees within a business or organization. |
|                                                                                                                                                                                  | 15.8.2.O.<br>Intentionally Blank | 15.8.5.O.<br>Intentionally Blank | 15.8.8.O.<br>Intentionally Blank                                                                | 15.8.12.O.<br>Explain the <b>collective bargaining process</b> and its impact on the legal requirements of management.                                                                                                                                                              |
|                                                                                                                                                                                  | 15.8.2.P.<br>Intentionally Blank | 15.8.5.P.<br>Intentionally Blank | 15.8.8.P.<br>Describe the role and function of performance evaluations in business.             | 15.8.12.P.<br>Design appropriate <b>orientation</b> , <b>training</b> , and <b>evaluation</b> activities to meet established skill development requirements.                                                                                                                        |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.8 Management                                                                                                                                                                  |                                  |                                                                                                                 |                                                                                                                                                                           |                                                                                                                                                                                |
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| 15.8.2.<br>GRADE Pre K-2                                                                                                                                                         |                                  | 15.8.5.<br>GRADE 3-5                                                                                            | 15.8.8.<br>GRADE 6-8                                                                                                                                                      | 15.8.12.<br>GRADE 9-12                                                                                                                                                         |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                  |                                                                                                                 |                                                                                                                                                                           |                                                                                                                                                                                |
|                                                                                                                                                                                  | 15.8.2.Q.<br>Intentionally Blank | 15.8.5.Q.<br>Intentionally Blank                                                                                | 15.8.8.Q.<br>Discuss employee <b>compensation</b> plans for various careers.                                                                                              | 15.8.12.Q.<br>Assess compensation, benefit plans, incentive packages, and possible <b>career paths</b> in businesses.                                                          |
| Management Focus                                                                                                                                                                 | 15.8.2.R.<br>Intentionally Blank | 15.8.5.R.<br>Intentionally Blank<br><br><i>Reference Business, Computer and Information Technology 15.1.5.W</i> | 15.8.8.R.<br>Interpret data on financial statements as it relates to management decisions.<br><br><i>Reference Business, Computer and Information Technology 15.1.8.W</i> | 15.8.12.R.<br>Compare a firm's financial position against industry standards.<br><br><i>Reference Business, Computer and Information Technology 15.1.12.W</i>                  |
|                                                                                                                                                                                  | 15.8.2.S.<br>Intentionally Blank | 15.8.5.S.<br>Intentionally blank                                                                                | 15.8.8.S.<br>Identify the processes used to design, redesign, supply, and schedule <b>production</b> for a <b>business product</b> .                                      | 15.8.12.S.<br>Compare and contrast the processes used for the design, redesign, supply, and/or production of a current <b>industry product</b> .                               |
|                                                                                                                                                                                  | 15.8.2.T.<br>Intentionally Blank | 15.8.5.T.<br>Intentionally Blank<br><br><i>Reference Business, Computer and Information Technology 15.7.5.L</i> | 15.8.8.T.<br>Identify management strategies used by global businesses.<br><br><i>Reference Business, Computer and Information Technology 15.7.8.L</i>                     | 15.8.12.T.<br>Analyze the impact of different management strategies used by global businesses.<br><br><i>Reference Business, Computer and Information Technology 15.7.12.L</i> |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.9. Marketing</b>                                                                                                                                                           |                                                                                                       |                                                                                                  |                                                                                                                                                                             |                                                                                                                                                                                                         |
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|                                                                                                                                                                                  | <b>15.9.2.<br/>GRADE Pre K-2</b>                                                                      | <b>15.9.5.<br/>GRADE 3-5</b>                                                                     | <b>15.9.8.<br/>GRADE 6-8</b>                                                                                                                                                | <b>15.9.12.<br/>GRADE 9-12</b>                                                                                                                                                                          |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                                       |                                                                                                  |                                                                                                                                                                             |                                                                                                                                                                                                         |
| <b>Marketing as a Profession</b>                                                                                                                                                 | 15.9.2.A.<br>With prompting and support, ask and answer questions about careers in <b>marketing</b> . | 15.9.5.A.<br>Identify <b>marketing</b> careers and organizations within the field of marketing.  | 15.9.8.A.<br>Explore various <b>marketing</b> careers and analyze their role in the business world.                                                                         | 15.9.12.A.<br>Analyze and summarize professional designations, careers, and organizations within the field of marketing, including the educational and certification requirements for each.             |
| <b>Marketing Fundamentals</b>                                                                                                                                                    | 15.9.2.B.<br>Ask and answer questions about items you and your family purchased.                      | 15.9.5.B.<br>Ask and answer questions about reasons you and your family made specific purchases. | 15.9.8.B.<br>Describe how businesses influence purchasing decisions.                                                                                                        | 15.9.12.B.<br>Analyze how marketing influences today's households, businesses, and society; including but not limited to business-to- <b>consumer</b> , business-to-business, and consumer-to-consumer. |
|                                                                                                                                                                                  | 15.9.2.C.<br>Intentionally Blank                                                                      | 15.9.5.C.<br>Intentionally Blank                                                                 | 15.9.8.C.<br>Distinguish among members of a <b>marketing channel</b> , including company, intermediaries, <b>retailer</b> , and consumer.                                   | 15.9.12.C.<br>Evaluate the influence of members of a <b>marketing channel</b> , including company, intermediaries, retailer, and consumer.                                                              |
| <b>Communications in Marketing</b>                                                                                                                                               | 15.9.2.D.<br>Intentionally Blank                                                                      | 15.9.5.D.<br><i>Reference Business, Computer and Information Technologies 15.3.5.D</i>           | 15.9.8.D.<br><i>Reference Business, Computer and Information Technologies 15.3.8.D</i>                                                                                      | 15.9.12.D.<br><i>Reference Business, Computer and Information Technologies 15.3.12.D</i>                                                                                                                |
|                                                                                                                                                                                  | 15.9.2.E.<br>Ask and answer questions about reasons you or your family buys an item.                  | 15.9.5.E.<br>Give examples of various consumer behaviors and characteristics.                    | 15.9.8.E.<br>Differentiate types of consumer behavior and characteristics including but not limited to spending habits, emotional buying, rational buying and buying power. | 15.9.12.E.<br>Research and analyze consumer behavior patterns and the effect of those patterns on business and the economy.                                                                             |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| 15.9. Marketing                                                                                                                                                                  |                                                                                       |                                                                                                                      |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                      |
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| 15.9.2.<br>GRADE Pre K-2                                                                                                                                                         |                                                                                       | 15.9.5.<br>GRADE 3-5                                                                                                 | 15.9.8.<br>GRADE 6-8                                                                                                                                                                                                   | 15.9.12.<br>GRADE 9-12                                                                                                                                                                                                               |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                       |                                                                                                                      |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                      |
| Marketing Mix                                                                                                                                                                    | 15.9.2.F.<br>With prompting and support, differentiate between products and services. | 15.9.5.F.<br>Identify types of products and services that have changed over time.                                    | 15.9.8.F.<br>Compare and contrast processes used to obtain, develop, maintain, and improve products or services including <b>product development, packaging, branding, product mix</b> and <b>product life cycle</b> . | 15.9.12.F.<br>Evaluate processes needed to obtain, develop, maintain, and improve products or services; including <b>product development, packaging, branding, product mix, product life cycle</b> , and product positioning.        |
|                                                                                                                                                                                  | 15.9.2.G.<br>Give examples of where <b>consumers</b> purchase products and services.  | 15.9.5.G.<br>Explain the process used to obtain and maintain product and service availability.                       | 15.9.8.G.<br>Compare and contrast different processes of distribution.                                                                                                                                                 | 15.9.12.G.<br>Assess the distribution process of various companies and industries.                                                                                                                                                   |
|                                                                                                                                                                                  | 15.9.2.H.<br>Ask and answer questions about costs of products and services.           | 15.9.5.H.<br>Discuss elements affecting a product's price.                                                           | 15.9.8.H.<br>Analyze pricing strategies and practices used by local, domestic, and global industries.                                                                                                                  | 15.9.12.H.<br>Evaluate the impacts of various pricing strategies on the <b>consumer</b> and businesses at the local, domestic, and global level; including <b>penetration, skimming, supply/demand</b> , and <b>exchange rates</b> . |
|                                                                                                                                                                                  | 15.9.2.I.<br>Provide examples of promotional items and advertisements.                | 15.9.5.I.<br>Distinguish types of promotions and their goal: education, awareness building, persuasion, and loyalty. | 15.9.8.I.<br>Compare and contrast existing <b>promotional plans</b> used by local, domestic, and global industries.                                                                                                    | 15.9.12.I.<br>Design a comprehensive promotion plan for a product or service.                                                                                                                                                        |
| Research                                                                                                                                                                         | 15.9.2.J.<br>Intentionally Blank                                                      | 15.9.5.J.<br>Provide examples of marketing related <b>data collection</b> methods used by companies.                 | 15.9.8.J.<br>Summarize <b>data collection</b> methods as related to marketing.                                                                                                                                         | 15.9.12.J.<br>Analyze <b>data collection</b> methods when entering into or expanding a market.                                                                                                                                       |

# Business, Computer and Information Technology Standards

## GRADES Pre K-12

| <b>15.9. Marketing</b>                                                                                                                                                           |                                                                                       |                                                                                                                    |                                                                                                                                                                                                                         |                                                                                                                |
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|                                                                                                                                                                                  | <b>15.9.2.<br/>GRADE Pre K-2</b>                                                      | <b>15.9.5.<br/>GRADE 3-5</b>                                                                                       | <b>15.9.8.<br/>GRADE 6-8</b>                                                                                                                                                                                            | <b>15.9.12.<br/>GRADE 9-12</b>                                                                                 |
| <i>Pennsylvania's public schools shall teach, challenge and support every student to realize his or her maximum potential and to acquire the knowledge and skills needed to:</i> |                                                                                       |                                                                                                                    |                                                                                                                                                                                                                         |                                                                                                                |
| <b>Marketing Plan</b>                                                                                                                                                            | 15.9.2.K.<br>Intentionally Blank                                                      | 15.9.5.K.<br>Intentionally Blank                                                                                   | 15.9.8.K.<br>Explain the components of a <b>marketing plan</b> .                                                                                                                                                        | 15.9.12.K.<br>Create a comprehensive <b>marketing plan</b> .                                                   |
| <b>Marketing Technology</b>                                                                                                                                                      | 15.9.2.L.<br>Intentionally Blank                                                      | 15.9.5.L.<br>Identify technologies that are used in marketing.                                                     | 15.9.8.L.<br>Explain how technologies are used in marketing to gain a competitive advantage.                                                                                                                            | 15.9.12.L.<br>Analyze the costs and benefits of using technology in marketing to gain a competitive advantage. |
| <b>Legal / Ethical</b>                                                                                                                                                           | 15.9.2.M.<br>Ask and answer questions about right and wrong (ethics in the classroom. | 15.9.5.M.<br>Provide examples of problems businesses and <b>consumers</b> have with unethical or illegal behavior. | 15.9.8.M.<br>Discuss the laws and regulations that impact marketing and its <b>consumers</b> (e.g., <b>Consumer Product Safety, Consumer Pricing Act, Trademark Counterfeiting Act, Federal Trade Commission Act</b> ). | 15.9.12.M.<br>Evaluate laws and regulations impacting marketing.                                               |

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### III. GLOSSARY

| TERM                               | DEFINITION                                                                                                                                                                                                          |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Absolute Advantage                 | When a nation or economic region is able to produce a good or service more efficiently (using the same amount of resources) than a second nation or region.                                                         |
| Accounting                         | Planning, recording, analyzing, and interpreting financial information.                                                                                                                                             |
| Accounting Cycle                   | Process of recording and processing the accounting events of a company.                                                                                                                                             |
| Accounting Equation                | An equation showing the relationship among assets, liabilities, and owner's equity.                                                                                                                                 |
| Alternatives                       | A choice or something different from the usual.                                                                                                                                                                     |
| American with Disabilities Act—ADA | Enacted by the Congress in 1990 and amended with changes effective January 1, 2009. The ADA is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability.     |
| Amortization                       | Process that reflects reduction in the book value of the asset due to usage and/or obsolescence, spreads a large expenditure proportionately over a fixed period, and thereby reduces the taxable income of a firm. |
| Application Tool                   | Program that helps the user accomplish a specific task.                                                                                                                                                             |
| Asset                              | Anything of value that is owned.                                                                                                                                                                                    |
| Audit                              | Examination and verification of a company's financial and accounting records and supporting documents by a professional, such as a Certified Public Accountant.                                                     |
| Balance of Payments                | The International Monetary Fund's accounting system that tracks the flow of goods, services and capital in and out of each country.                                                                                 |
| Balance of Trade                   | Difference between a country's total imports and exports over a set period.                                                                                                                                         |
| Balance Sheet                      | Financial statement that reports assets, liabilities, and owner's equity on a specific date.                                                                                                                        |
| Bank Statement                     | Report of deposits, withdrawals, and bank balances sent to a depositor by a bank.                                                                                                                                   |
| Bankruptcy                         | Legal state where a business is unable to meet financial obligations; a business becomes insolvent.                                                                                                                 |
| Benefit Plans                      | Forms of compensation other than dollars that an organization offers their employees (vacation pay, sick leave, flex time, etc.).                                                                                   |
| Bias                               | Prejudice in favor of or against one thing, person, or group compared with another usually in a way considered to be unfair.                                                                                        |
| Branding                           | Mark or design placed on a product to distinguish it from other products and to identify the owner of the brand.                                                                                                    |
| Breakeven Analysis                 | Calculation of the approximate sales volume required to cover costs, below which production would be unprofitable and above which it would be profitable.                                                           |
| Capital Structure                  | Permanent long-term financing of a company including long-term debt, common stock, preferred stock and retained earnings.                                                                                           |
| Career Clusters                    | Occupations in a related field of work that require similar skills.                                                                                                                                                 |
| Career Paths                       | Determined career steps to obtain the ultimate career goal.                                                                                                                                                         |
| Cash Flow                          | Net amount of an entity's incoming cash receipts and outgoing cash payments over a period of time.                                                                                                                  |
| Child Labor Laws                   | Child labor laws in the United States that include numerous statutes and rules regulating the employment of minors.                                                                                                 |
| Civil Rights Act of 1964           | Forbids discrimination in hiring, promoting and firing.                                                                                                                                                             |
| Collective Bargaining Process      | Process of negotiating employment conditions such as wages, vacation, sick leave, etc., usually between a union and employer group.                                                                                 |
| Comparative Advantage              | When a nation or economic region is able to produce a product at a lower opportunity cost compared to another nation or region.                                                                                     |
| Compensation                       | Payment for a service or product; can be of money or other type (barter).                                                                                                                                           |
| Compliance                         | Conformity in following legal requirements.                                                                                                                                                                         |
| Consequences                       | Event produced by a cause or set of circumstances.                                                                                                                                                                  |
| Consolidated Omnibus               | 1985 law that mandates an insurance program giving some employees the ability to continue health insurance coverage after leaving                                                                                   |

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| Reconciliation Act—COBRA                          | employment.                                                                                                                                                                            |
| Consumer                                          | Person who buys the product.                                                                                                                                                           |
| Consumer Good Pricing Act                         | Legislation that prohibits manufactures and retailers from setting a fixed price for a product.                                                                                        |
| Consumer Product Safety Act                       | Legislation that requires safety standards for products.                                                                                                                               |
| Consumer Protection                               | Laws designed to ensure fair competition and the free flow of truthful information in the marketplace.                                                                                 |
| Contracts                                         | A written or spoken agreement especially one concerning employment, sales, or tenancy that is intended to be enforceable by law.                                                       |
| Copyright                                         | Exclusive rights given to a creator of an original work.                                                                                                                               |
| Corporation                                       | Business that is chartered by a state and given rights (such as financial, legal, and tax liabilities) separate from its individual owners.                                            |
| Cost of Living                                    | The average cost of the basic necessities of life such as food, clothing, and shelter.                                                                                                 |
| Cyber Bullying                                    | Use of the Internet and related technologies to harm others in a deliberate, repeated, and hostile manner.                                                                             |
| Data Collection                                   | The collection of data from surveys, or from independent or networked locations via data capture, data entry, or data logging.                                                         |
| Database                                          | Systematically organized or structured repository of indexed information (usually as a group of linked data files) that allows easy retrieval, updating, analysis, and output of data. |
| Decoding                                          | Translate data from a code to its original language or format.                                                                                                                         |
| Demand                                            | Quantity of a specific product that a buyer is able and willing to buy at a certain price, usually at a particular time and place.                                                     |
| Demographics                                      | Statistical data relating to the population and particular groups within it.                                                                                                           |
| Depletion                                         | Actual physical depletion of natural resources by companies.                                                                                                                           |
| Depreciation                                      | Decrease in value due to wear and tear, decay or decline in price.                                                                                                                     |
| Digital Citizenship                               | The norms of appropriate, responsible behavior with regard to technology use.                                                                                                          |
| Digital Media                                     | Electronic information where data is stored in a digital format.                                                                                                                       |
| Digital Threats                                   | Malicious code such as viruses, worms and Trojan horses sent through a computer or cell communication intended to cause damage to the system.                                          |
| Discrimination                                    | Treating people unjustly because they fit into a preconceived category (race, sexual orientation, age, etc.)                                                                           |
| Diversified                                       | Using a variety of sources.                                                                                                                                                            |
| Domestic                                          | Pertaining to one's own country and items produced in that country.                                                                                                                    |
| Emerging Technologies                             | New technologies that show promise, are on the horizon or have recently been introduced but are not yet in the mainstream.                                                             |
| Encoding                                          | Convert data from its original form into a computer language code.                                                                                                                     |
| Entrepreneur                                      | Individual who organizes, manages and assumes the risk of a business venture.                                                                                                          |
| Entrepreneurship                                  | Ability to bring creativity and motivation to the creation of a new company, product, or idea.                                                                                         |
| Ergonomic                                         | Science of designing equipment and the work space to maximize the performance, safety and health of users.                                                                             |
| Ethics                                            | Principles of right and wrong that guide an individual in making decisions.                                                                                                            |
| Evaluation                                        | The process in management used to determine whether or not an employee meets their job specifications.                                                                                 |
| Exchange Rates                                    | The price of one currency in terms of another, i.e. the number of units of one currency that may be exchanged for one unit of another currency.                                        |
| Expense                                           | Money spent or cost incurred in an organization's efforts to generate revenue.                                                                                                         |
| Federal Trade Commission Act                      | Legislation that prohibits unfair business practices such as fraud, deception and unfair methods of competition.                                                                       |
| FIFO—First-In, First-Out Inventory Costing Method | Method of inventory valuation based on the assumption that goods are sold or used in the same chronological order in which they are bought.                                            |
| Financial Statements                              | Summarize the financial condition and operations of a business.                                                                                                                        |
| Fixed Cost                                        | Periodic cost that remains more or less unchanged regardless of the output level or sales revenue.                                                                                     |

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| Foreign Debt                                              | Money owed by a nation to foreign investors, banks or governments.                                                                                                                                                                                                                                                                                                                                                                                    |
| Franchise                                                 | Legal agreement that gives an individual the right to market a company's products or services in a particular area.                                                                                                                                                                                                                                                                                                                                   |
| Free Enterprise                                           | Ability of private businesses to operate competitively for profit with minimal government regulation.                                                                                                                                                                                                                                                                                                                                                 |
| GDP—Gross Domestic Product                                | Measure of the market value of goods and services produced by a nation.                                                                                                                                                                                                                                                                                                                                                                               |
| General Ledger                                            | Includes all accounts needed to prepare financial statements.                                                                                                                                                                                                                                                                                                                                                                                         |
| Global                                                    | Pertaining to the whole world.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Harassment                                                | Employment discrimination that violates Title VII of the Civil Rights Act of 1964.                                                                                                                                                                                                                                                                                                                                                                    |
| Hardware                                                  | Physical components of a computer system.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Health Insurance Portability and Accountability Act—HIPAA | Law enacted in 1996 that protects health insurance coverage for workers and their families when they change or lose their jobs. In 2003 the government enacted HIPAA Privacy Rule that regulates the use and disclosure of Protected Health Information (PHI) held by "covered entities" (generally, health care clearinghouses, employer sponsored health plans, health insurers, and medical service providers that engage in certain transactions. |
| Horizontal Analysis                                       | Comparison of historical financial information over a series of reporting periods, or of the ratios derived from this financial information.                                                                                                                                                                                                                                                                                                          |
| Hybrid Corporation                                        | Company that blends conducting business online and in a traditional office setting.                                                                                                                                                                                                                                                                                                                                                                   |
| Icons                                                     | Small pictures on a computer screen that represent a shortcut to a program, file or website.                                                                                                                                                                                                                                                                                                                                                          |
| Identity theft                                            | Form of fraud in which a person takes another person's identity to access resources or obtain credit.                                                                                                                                                                                                                                                                                                                                                 |
| Incentive Packages                                        | Additional benefits provided by employers to motivate workers to perform at higher levels (bonuses, trips, cars, etc.).                                                                                                                                                                                                                                                                                                                               |
| Income Statement                                          | Financial statement showing the revenue and expenses for a fiscal period.                                                                                                                                                                                                                                                                                                                                                                             |
| Industry Certifications                                   | Exam, assessment, or education taken to designate that a person has an established set of skills and knowledge in a particular technology topic.                                                                                                                                                                                                                                                                                                      |
| Industry Product                                          | Produced by effort and labor and used in an industry for final use or in the distribution for final consumption.                                                                                                                                                                                                                                                                                                                                      |
| Inflation                                                 | General increase in prices and fall in the purchasing value of money.                                                                                                                                                                                                                                                                                                                                                                                 |
| Information Technology                                    | Set of tools, processes, and methodologies and associated equipment used to collect, process and present information. In broad terms IT also includes office automation, multimedia, and telecommunication.                                                                                                                                                                                                                                           |
| Initial Public Offering—IPO                               | First time a company offers stock for sale to the public.                                                                                                                                                                                                                                                                                                                                                                                             |
| Input                                                     | Devices used to enter data into a computer.                                                                                                                                                                                                                                                                                                                                                                                                           |
| Inventory                                                 | Asset held for sale in the ordinary course of business, or that is in the process of being produced for sale, or the materials or supplies intended for consumption in the production process.                                                                                                                                                                                                                                                        |
| Investment Planning                                       | Long term strategy of providing for income security.                                                                                                                                                                                                                                                                                                                                                                                                  |
| Journalize                                                | Recording accounting transactions in a journal.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Labor Relations                                           | The interaction between a company's upper management and the rest of its employees.                                                                                                                                                                                                                                                                                                                                                                   |
| Liability                                                 | An amount owed by a business.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Licensing                                                 | One firm gives another firm a permission which allows the latter to engage in an activity otherwise legally forbidden to it, such as transfer of intellectual and proprietary knowledge in return for royalty as revenue.<br>Number of users permitted to use a software program to adhere copyright law.                                                                                                                                             |
| Lifelong Learning                                         | The enthusiasm for continuing education through traditional and non-traditional means to advance personally or in a career.                                                                                                                                                                                                                                                                                                                           |
| LIFO—Last-In, First-Out Inventory Costing Method          | Method of inventory valuation based on the assumption that the goods purchased most recently are sold or used first.                                                                                                                                                                                                                                                                                                                                  |
| Liquidity                                                 | Ability to pay liabilities in a timely manner as they come due for payment under their original payment terms.                                                                                                                                                                                                                                                                                                                                        |
| Local Area Networks (LAN)                                 | Network that connects computers that are close to each other.                                                                                                                                                                                                                                                                                                                                                                                         |

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| Logistics                   | The handling of details of an operation associated with procurement, transportation, delivery, and facilities management.                                                                                                         |
| Marketing                   | Dynamic activities that focus on the customer to generate a profitable exchange.                                                                                                                                                  |
| Marketing Plan              | A plan that guides a company so that it avoids such pitfalls as lost sales, lost opportunities, and poor product planning.                                                                                                        |
| Monetary                    | Relating to money.                                                                                                                                                                                                                |
| Monopoly                    | Exclusive control or possession by one group of the means of producing or selling goods or services.                                                                                                                              |
| Multimedia tools            | Communication that uses any combination of different media including text, spoken audio, music, images, animation and video.                                                                                                      |
| Negotiating                 | Try to reach an agreement or compromise through discussion with others.                                                                                                                                                           |
| Netiquette                  | Rules of etiquette or manners on the Internet.                                                                                                                                                                                    |
| Networks                    | Group of interconnected computers, including the hardware and software used to connect them.                                                                                                                                      |
| Non-verbal Communication    | Process of communicating through sending and receiving wordless (mostly visual) messages between people. Messages can be communicated through gestures and touch, body language or posture, or facial expression and eye contact. |
| Oligopoly                   | Market dominated by so few sellers that action by any of them will impact both the price of the good and the competitors.                                                                                                         |
| Operating System            | The main computer program that schedules tasks, manages storage and handles peripherals.                                                                                                                                          |
| Opportunity Cost            | A benefit, profit, or value of something that must be given up to acquire or achieve something else.                                                                                                                              |
| Orientation                 | Learning about an organization and its departments, training, benefits, and culture.                                                                                                                                              |
| Output                      | Devices used to communicate information to the outside world.                                                                                                                                                                     |
| Owner's Equity Statement    | Financial statement that summarizes the changes in owner's equity during a fiscal period.                                                                                                                                         |
| Packaging                   | Act of grouping items together for easy handling or carrying; a bundle.                                                                                                                                                           |
| Partnership                 | Business in which there is more than one owner that shares in the financial and legal liabilities of the business. Each partner is responsible for his/her own share of the tax liability created by the partnership.             |
| Pathways                    | Series of connected education and training programs and student support services that enable individuals to secure a job and advance within their career.                                                                         |
| Penetration                 | Activity of increasing the market share of an existing product or promoting a new product through strategies such as bundling, advertising, lowering prices, or offering volume discounts.                                        |
| Peripheral Devices          | Hardware connected to a computer outside of the CPU and internal memory.                                                                                                                                                          |
| Plagiarism                  | Copying another person's original work and claiming it as your own.                                                                                                                                                               |
| Post                        | Transferring information from a journal entry to a ledger account.                                                                                                                                                                |
| Privacy                     | Protecting the personal information of individuals so that information is confidential and held exclusive to the individual.                                                                                                      |
| Processing                  | Devices in a computer system that perform the basic arithmetic and logical instructions or programs in the computer system.                                                                                                       |
| Product Development         | Creation of products with new or different characteristics that offer new or additional benefits to the customer.                                                                                                                 |
| Product Life Cycle          | Stages that a product or a product category goes through from concept to obsolescence.                                                                                                                                            |
| Product Mix                 | All the types of products that a company sells.                                                                                                                                                                                   |
| Production                  | To transform factors of production (labor, raw materials, knowledge, capital, resources) into finished goods.                                                                                                                     |
| Programming                 | Designing and writing code.                                                                                                                                                                                                       |
| Promotional Plan            | Outline of the marketing tools, strategies and resources that a company intends to use to promote a product or service.                                                                                                           |
| Proprietorship              | Business owned by one person.                                                                                                                                                                                                     |
| Protocol                    | Agreement providing for reciprocal tariff and other trade concessions among developing countries.                                                                                                                                 |
| Purchasing Power Parity—PPP | Economic concept that exchange rates between currencies should be based on their relative purchasing power in their domestic markets for a fixed basket of goods and services.                                                    |
| Pure Competition            | Theoretical free-market situation in which buyers and sellers: (1) are too numerous and too small to have any degree of individual control                                                                                        |

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|                                   |                                                                                                                                                                                                                                                |
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|                                   | over prices, (2) seek to maximize profit, (3) can freely enter or leave the market, (4) have access to information regarding availability, prices, and quality of goods being traded and (5) all goods of a particular nature are homogeneous. |
| Rational                          | Reasonable approach to making decisions.                                                                                                                                                                                                       |
| Reconciliation                    | Independent verification of the veracity of the balance in the company account, as well as to clarify the differences between the two versions of the account.                                                                                 |
| Retailer                          | Business that buys products to resell to final consumers.                                                                                                                                                                                      |
| Revenue                           | Increase in owner's equity resulting from the operation of a business.                                                                                                                                                                         |
| Sales Tax                         | Tax on a sale of merchandise or services.                                                                                                                                                                                                      |
| Scarcity                          | Insufficient amount or supply; shortage.                                                                                                                                                                                                       |
| Skimming                          | Illegal practice of taking money from cash receipts for personal use.                                                                                                                                                                          |
| Social Networking                 | Using Internet or cell services to share ideas, activities, events, and interests with other users based on common interests.                                                                                                                  |
| Software                          | Program or set of programs that tell a computer what to do.                                                                                                                                                                                    |
| Sole Proprietorship               | Business that has one owner who assumes all financial, legal, and tax liability for the business.                                                                                                                                              |
| Solvency                          | Ability of a corporation to meet its long-term fixed expenses and to accomplish long-term expansion and growth.                                                                                                                                |
| Statement of Stockholders' Equity | A financial statement that shows changes in a corporation's ownership for a fiscal period.                                                                                                                                                     |
| Stereotype                        | Generalizations about a group of people whereby we attribute a defined set of characteristics to this group.                                                                                                                                   |
| Storage devices                   | Peripheral component for storing data.                                                                                                                                                                                                         |
| Subordinate                       | An employee ranked below another employee in terms of seniority or office hierarchy.                                                                                                                                                           |
| Subsidiary Ledger                 | Special or supporting ledger (such as cost, purchases, sales) that provides more detailed information about individual accounts than a general ledger.                                                                                         |
| Supply                            | Quantity of a specific product that a supplier is willing to supply at a certain price.                                                                                                                                                        |
| T-Account                         | Simplified two-column account form that resembles capital letter 'T' and is used commonly in illustrating double entry bookkeeping techniques.                                                                                                 |
| Tariff                            | Tax on imports that governments use to protect domestic manufacturers of products that compete with imports.                                                                                                                                   |
| Trade Agreements and Laws         | International agreement and laws on conditions of trade in goods and services among countries.                                                                                                                                                 |
| Trade Barriers                    | Governmental policy, action, or practice that intentionally interrupts the free flow of goods or services between countries.                                                                                                                   |
| Trade Discount                    | A reduction in the list price granted to customers.                                                                                                                                                                                            |
| Trademark Counterfeiting Act      | Legislation that prohibits the sale of counterfeit goods.                                                                                                                                                                                      |
| Training                          | Organized activity aimed at communicating information and/or instructions to improve performance or attain a required level of knowledge or skill.                                                                                             |
| Variable Cost                     | Cost of labor, material or overhead that changes according to the change in the volume of production units.                                                                                                                                    |
| Venture Capital                   | Money available from individuals or corporations who make a profit by investing in startup companies.                                                                                                                                          |
| Vertical Analysis                 | Proportional analysis of a financial statement where each line item is listed as a percentage of another item.                                                                                                                                 |
| Virtual Corporation               | Corporation which conducts business solely online.                                                                                                                                                                                             |
| Virtual Work Environment          | Work place that is not located in any one physical space but rather several workplaces and is technologically connected without regard to geographic boundaries.                                                                               |
| Web Browser                       | Software application used to navigate the Internet.                                                                                                                                                                                            |
| Website                           | Group of linked web pages managed by a single company.                                                                                                                                                                                         |
| Wide Area Networks (WAN)          | Network that connects devices over long distances.                                                                                                                                                                                             |