

BUSINESS EDUCATION

ELECTRONIC PROCESSING I

ELECTRONIC PROCESSING II

(Formerly Keyboarding /WP)

Grades 9-12

Vineland Public Schools
Vineland, NJ

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Grades 9-12

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TABLE OF CONTENTS

Vineland Public Schools Business Education Purpose.....	5
Business Education Goals.....	6
New Jersey Core Curriculum Content Standards for Technological Literacy and Indicators (Grade 12).....	7-10
Course Prerequisites: Electronic Processing I & II.....	11-12
Course Purposes: Electronic Processing I & II.....	13
Course Description and Goals: Electronic Processing I.....	14-15
Course Content and Related Students Objectives/Outcomes: Electronic Processing I.....	16-26
Assessment: Electronic Processing I.....	27
Course Description and Goals: Electronic Processing II.....	28-30
Course Content and Related Students Objectives/Outcomes: Electronic Processing II.....	31-37
Assessment: Electronic Processing II	38
Instructional Resources: Electronic Processing I & II.....	39

BUSINESS EDUCATION

PURPOSE

As society becomes more complex, “traditional” education becomes less relevant due to its fragmentary nature. The combination of interdisciplinary instruction (which combines several content disciplines in a common lesson or activity) and the use of a systems approach (to develop an overview perspective of the actions and forces that impact the activity) produces a highly motivating and engaging context for learning. Experiential education enables students to learn by doing, to plan and design projects, to research possible solutions to specific and general problems and to present the results of their work to others. Students evaluate both the process and the product. These valuable learning experiences integrate academic content so students are able to achieve and in some cases surpass the Standards.

The use of “hands-on” learning activities increases student involvement and adds a sense of personal meaning for students. Students are empowered to interact with the “real world” and become excited and committed to projects in which they play key decision- making roles. As needed in the world of work, students learn to communicate, to create, to think on their feet, and to meet tight timelines. Learning to work as part of a team, sometimes as responsible leader and sometimes as a team player, as an important skill. Part of this process includes learning to communicate effectively. Listening, reflecting, providing constructive feedback, and carefully considering the ideas of others are important skills to take to the workplace. Throughout the process, students gain confidence from the respect and self-satisfaction their success earns.

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GOALS

Students will be expected to develop skills in the use of information, up-to- date educational technology, and other tools to improve learning, achieve goals, and produce products and presentations. Students will be expected to use technological tools to develop, locate, summarize, organize, synthesize, and evaluate information. The technological tools used to develop these skills include computers, software, and networking. Students will:

- Understand how technological systems function;
- Select appropriate tools and technology for specific activities;
- Demonstrate skills needed to effectively access and use technology based materials through electronic processing, troubleshooting, and retrieving and managing information;
- Search and manipulate databases;
- Access technology based communication and information systems;
- Use technology and other tools to solve problems, collect data, and make decisions;
- Use technology and other tools, including word processing, spreadsheets, charts and graphs to communicate information; and
- Discuss problems that relate to the increasing use of technologies.

The units of study and student proficiencies that define this course are consistent with district and state objectives and reflect the commitment of Vineland Public Schools as outlined in our Mission Statement to “enable students to become knowledgeable, skillful, life-long learners who are contributing citizens in our changing society.”

STANDARD 8.1 (COMPUTER AND INFORMATION LITERACY)

ALL STUDENTS WILL USE COMPUTER APPLICATIONS TO GATHER AND ORGANIZE INFORMATION AND TO SOLVE PROBLEMS.

Descriptive Statement: Using computer applications and technology tools students will conduct research, solve problems, improve learning, achieve goals, and produce products and presentations in conjunction with standards in all content areas, including career education and consumer family, and life skills. They will also develop, locate, summarize, organize, synthesize, and evaluate information for lifelong learning.

Building upon knowledge and skills gained in preceding grades, by the end of Grade 12, students will:

Strand	Cumulative Progress Indicators
8.1.A. Basic Computer Skills and Tools	<p>8.1.12.A.1.Create a multi-page document with citations using word processing software in conjunction with other tools that demonstrates the ability to format, edit, and print.</p> <p>8.1.12.A.2.Construct a spreadsheet, enter data, use mathematical functions to manipulate and process data, generate charts and graphs, and interpret the results.</p> <p>8.1.12.A.3.Plan and create a relational database, define fields, input data from multiple records, produce a report using sort and query, and interpret the data.</p> <p>8.1.12.A.4.Produce a multimedia project using text, graphics, moving images, and sound.</p> <p>8.1.12.A.5.Produce and edit page layouts in different formats using desktop publishing and graphics software.</p> <p>8.1.12.A.6.Develop a document or file for inclusion into a website or web page.</p> <p>8.1.12.A.7.Discuss and/or demonstrate the capability of emerging technologies and software in the creation of documents.</p> <p>8.1.12.A.8.Create documents using professional format including a resume and a business letter.</p> <p>8.1.12.A.9.Merge information from one document to another.</p>

<p>8.1.B. Application of Productivity Tools</p>	<p>8.1.12.B.1. Describe the potential and implications of contemporary and emerging computer applications for personal, social, lifelong learning, and workplace needs.</p> <p>8.1.12.B.2. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.</p> <p>8.1.12.B.3. Make informed choices among technology systems, resources and services in a variety of contexts.</p> <p>8.1.12.B.4. Use appropriate language when communicating with diverse audiences using computer and information literacy.</p> <p>8.1.12.B.5. Select and use specialized databases for advanced research to solve real world problems.</p> <p>8.1.12.B.6. Identify new technologies and other organizational tools to use in personal, home, and/or work environments for information retrieval, entry, and presentation.</p> <p>8.1.12.B.7. Evaluate information sources for accuracy, relevance, and appropriateness.</p> <p>8.1.12.B.8. Compose, send, and organize e-mail messages with and without attachments.</p> <p>8.1.12.B.9. Create and manipulate information, independently and/or collaboratively, to solve problems and design and develop products.</p> <p>8.1.12.B.10. Identify, diagnose, and suggest solutions for non-functioning technology systems.</p> <p>8.1.12.B.11. Identify a problem in a content area and formulate a strategy to solve the problem using brainstorming, flowcharting, and appropriate resources.</p> <p>8.1.12.B.12. Integrate new information into an existing knowledge base and communicate the results in a project or presentation.</p>
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STANDARD 8.2 (TECHNOLOGY EDUCATION)

ALL STUDENTS WILL DEVELOP AN UNDERSTANDING OF THE NATURE AND IMPACT OF TECHNOLOGY, ENGINEERING, TECHNOLOGICAL DESIGN, AND THE DESIGNED WORLD AS THEY RELATE TO THE INDIVIDUAL, SOCIETY, AND THE ENVIRONMENT.

Descriptive Statement: The following indicators are based on the Standards for Technological Literacy (STL, 2000) and support the National Academy of Engineering's (2002) call for students to gain technological literacy. Students will be expected to understand the various facets of technology and the design process. They will analyze and evaluate design options and then apply the design process to solve problems. A systems perspective is employed to emphasize the interconnectedness of all knowledge and the impact of technology and technological change. Students will be expected to use technology as it applies to physical systems, biological systems, and information and communication systems. The intent at the elementary and middle school levels is that all students develop technological literacy and are prepared for the option of further study in the field of technology education. At the elementary level, the foundation for technology education is found in the science standards, particularly standards 5.2 and 5.4.

Building upon knowledge and skills gained in preceding grades, by the end of Grade 12, students electing courses in technology education will:

Strand	Cumulative Progress Indicators
8.2 A. Nature and Impact of Technology	8.2.12.A.1. Use appropriate data to discuss the full costs, benefits and trade-offs, and risks related to the use of technologies. 8.2.12.A.2. Explain how technological development is affected by competition through a variety of management activities associated with planning, organizing, and controlling the enterprise. 8.2.12.A.3. Provide various examples of how technological developments have shaped human history.

<p>8.2.B. Design Process and Impact Assessment</p>	<p>8.2.12.B.1.Analyze a given technological product, system, or environment to understand how the engineering design process and design specification limitations influenced the final solution.</p> <p>8.2.12.B.2.Evaluate the function, value, and appearance of technological products, systems, and environments from the perspective of the user and the producer.</p> <p>8.2.12.B.3.Develop methods for creating possible solutions, modeling and testing solutions, and modifying proposed design in the solution of a technological problem using hands-on activities.</p> <p>8.2.12.B.4.Use a computer assisted design (CAD) system in the development of an appropriate design solution.</p> <p>8.2.12.B.5.Diagnose a malfunctioning product and system using appropriate critical thinking methods.</p> <p>8.2.12.B.6.Create a technological product, system, or environment using given design specifications and constraints by applying design and engineering principles.</p>
<p>8.2.C. Systems in the Designed World</p>	<p>8.2.12.C.1.Explain the life cycle of a product from initial design to reuse, recycling, remanufacture, or final disposal, and its relationship to people, society, and the environment, including conservation and sustainability principles.</p> <p>8.2.12.C.2.Analyze the factors that influence design of products, systems, and environments.</p> <p>8.2.12.C.3.Compare and contrast the effectiveness of various products, systems, and environments associated with technological activities in energy, transportation, manufacturing, and information and communication.</p>

**COURSE PREREQUISITES:
ELECTRONIC PROCESSING I & II
GRADES 9-12**

Consistent with expectations outlined in the New Jersey Core Curriculum Content Standards and approved Vineland Public School curriculum, students enrolling in Electronic Processing courses should know and be able to:

- Demonstrate appropriate keyboarding techniques and correct hand and body positions to input and access text and data on a computer keyboard;
- Explain basic distinctions among computer software programs, such as word processors, special purpose programs, and games;
- Demonstrate the use of menu options and commands;
- Use word processing software to edit, copy, move, save, and print text with some formatting (e.g., center lines, use tabs, form paragraphs);
- Make back-up copies of stored data, such as text, programs, and databases;
- Trouble-shoot simple problems in software (e.g., re-boot computer, use help systems);
- Demonstrate and apply knowledge of common features and uses of word processors (e.g., use clip art, spell-checker, grammar checker, thesaurus);
- Demonstrate and apply knowledge of common features and uses of databases (e.g., databases contain records of similar data, which is sorted or organized for ease of use; databases are used in both print form, such as telephone books, and electronic form, such as computerized card catalogs);
- Demonstrate and apply knowledge of common features and uses of desktop publishing software (e.g., documents are created, designed, and formatted for publication; data, graphics, and scanned images can be imported into a document using desktop software);
- Demonstrate and apply knowledge of common features and uses of spreadsheets (e.g., data is entered in cells identified by row and column; formulas can be used to update solutions automatically; spreadsheets are used in print form, such as look-up tables, and electronic form, such as to track business profit and loss);

- Demonstrate and apply knowledge of common features and uses of presentation software;
- Demonstrate knowledge of common formats among software applications (e.g., word processing files, database files); and
- Demonstrate ethical behavior in the use of computer technology.

Upon completion of Electronic Processing courses, students will be able to:

- Accurately process text at a speed of 30 words per minute for Electronic Processing I and 40 words per minute for Electronic Processing II;
- Import, export, and merge data stored in different formats (e.g., text, graphics) and between software programs;
- Identify and use advanced features of software products (e.g., galleries, templates, macros, mail merge);
- Use desktop publishing software to create a variety of publications;
- Use a spreadsheet to update, add, and delete data, and to write and execute valid formulas on data;
- Select and use relational databases, define fields, input data from multiple records, produce a report using sort and query, and interpret the data; and
- Use presentation software to create multimedia products.

**COURSE PURPOSE:
ELECTRONIC PROCESSING I & II
GRADES 9-12**

Today it is almost impossible to find a job that does not require the use of a computer. Most workers, including executives, managers, and administrative employees, use a computer to create, edit, analyze, and organize data. Even people who never thought they would use a computer are now banking, placing orders, balancing their checkbooks, researching, and communicating online. The primary goal of Electronic Processing I & II courses is to prepare students for whatever lies ahead in their future endeavors.

In Electronic Processing courses at Vineland High School, the use of “hands-on” learning activities increases student involvement and adds a sense of personal meaning for students. Students are empowered to interact with the “real world” and become excited and committed to projects in which they play key decision-making roles. As needed in the world of work, students learn to communicate, to create, to think on their feet, and to meet tight timelines. Learning to work as part of a team, sometimes as a responsible leader and sometimes as a team player, is an important skill. Part of this process includes learning to communicate effectively. Listening, reflecting, providing constructive feedback, and carefully considering the ideas of others are important skills to take to the workplace. Throughout the process, students gain confidence from the respect and self-satisfaction their success earns.

**COURSE DESCRIPTION AND GOALS:
ELECTRONIC PROCESSING I
GRADES 9-12**

Electronic Processing I is a full year, five credit course offered in grades 9 through 12. This course is suggested for all students whether it be for personal, educational, business, or college preparatory use. Students will learn the operating techniques and other skills necessary to input text and data at a rate which will satisfy these objectives.

Suggested projects to reinforce basic skills will include:

- Daily class activities;
- Electronic processing simulations: These simulations will reinforce electronic processing skills previously learned and allow students to practice new skills in context; and
- Assessment activities found throughout each unit.

Electronic Processing I Goals

Electronic Processing I is a distinct discipline that integrates academic concepts and technology application throughout the curriculum.

Broad-based areas of study that identify the skills in which students will be able to demonstrate proficiency as a result of instruction in Electronic Processing I are:

- Letter-key operation;
- Keyboard mastery/language skills;
- Figure-key operation;
- Symbol keys;
- Keypad operation;
- Center lines/documents;

- Format memos;
- Learn letter formats;
- MLA report format;
- Unbound report format; and
- Table formats.

Since Samuel Clemens (Mark Twain) turned in the first typed manuscript in the mid-1870s, keyboarding has become a universal writing skill.

Reporters, short story writers, poets, and novelists today compose at computer keyboards. Likewise, many musicians now use the computer keyboard to compose and arrange music. Also, artists now use the keyboard for graphic design. In fact, a high percentage of people in all walks of life employ a computer keyboard to simplify and speed up their work. So, too, do students from elementary school through college use their keyboarding skill to prepare school assignments, papers, and reports. Fortunate indeed are those who have an early opportunity to develop a skill that has so many wide-ranging uses.

**COURSE CONTENT AND RELATED STUDENT
OBJECTIVE/OUTCOMES
ELECTRONIC PROCESSING I
GRADES 9-12**

Unit 1: Letter-Key Operation

In this unit, students will review correct hand and body positions to input and access text and data using letter and operational keys.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.B.10; and 8.1.12.B.11.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.5; 9.2.12.F.4; and 9.2.12.F5
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Demonstrate proper reach technique of letter keys;
- Demonstrate proper reach technique of Space bar and Enter key;
- Demonstrate proper reach technique of Shift keys;
- Demonstrate proper reach technique of Cap Lock key;
- Demonstrate proper reach technique of punctuation marks; and
- Demonstrate proper reach technique of Tab key.

Unit 2: Keyboard Mastery/Language Skills I

In this unit, students will practice mastery of the keyboard and incorporate language skills. They will also learn to key printed and handwritten script copy.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.B.10; and 8.1.12.B.11.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.5; 9.2.12.F.4; 9.2.12.F5
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Practice proper response patterns to gain speed;
- Practice capitalization rules;
- Improve straight copy and script skills;
- Improve straight copy speed and control;
- Demonstrate proper keying techniques; and
- Demonstrate skill on various kinds of copy.

Unit 3: Figure and Symbol Key Operation

In this unit, students will demonstrate the proper reach technique for use of number and symbol keys (reaching from the home keys).

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.B.10; and 8.1.12.B.11
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.5; 9.2.12.F.4; and 9.2.12.F5
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Demonstrate proper reach technique of number keys;
- Demonstrate proper reach technique of /, \$, %, and – keys;
- Demonstrate proper reach technique of #, &, and () keys; and
- Demonstrate proper reach technique of ', ", _, and * keys.

Unit 4: Numeric Keypad Operation

In this unit, students will demonstrate the proper reach technique for use of the numeric keypad.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.B.10; and 8.1.12.B.11.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.5; 9.2.12.F.4; and 9.2.12.F.5.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will be able to successfully:

- Demonstrate proper reach technique of 4, 5, 6, and 0 keys;
- Demonstrate proper reach technique of 7, 8, and 9 keys; and
- Demonstrate proper reach technique of 1, 2, and 3 keys.

Unit 5: Keyboard Mastery/Language Skills II

In this unit, students will build upon previously learned keyboarding skills and incorporate advanced language skills. Timed writings will be introduced.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.B.10; and 8.1.12.B.11.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.5; 9.2.12.F.4; and 9.2.12.F.5.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Improve keying technique of letter keys;
- Improve keying speed on 1-, 2-, and 3- minute writings;
- Improve skill on sentence and paragraph writings;
- Improve use of capitalization and number expression skills;
- Improve keying speed and control;
- Identify and construct simple sentences;
- Identify and construct compound sentences;
- Identify and construct complex sentences;
- Improve skill on script and rough-draft copy; and
- Improve skill transfer and build speed on timed writings.

Unit 6: Align Copy

In this unit, students will learn to align text and data vertically and horizontally, using word processing features including right, left, and decimal tab stops.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.B.10; 8.1.12.B.11; and 8.1.12.B.12.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.3; 9.1.12.B.5; 9.2.12.F.4; and 9.2.12.F.5.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Demonstrate ability to center lines horizontally;
- Improve keying speed and control;
- Demonstrate ability to set and use right, left, and decimal tab stops; and
- Align lists, announcements, and menus.

Unit 7: Format Memos and E-Mail

In this unit, students will learn to format memorandums (standard and simplified) and e-mails. To facilitate development of e-mail skills, Internet mail accounts will be set up using such services as www.yahoo.com or www.hotmail.com.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.1; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.4; 8.1.12.B.6; and 8.1.12.B.12.
Career Education and Consumer, Family, and Life Skills	9.2.12.F.5.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Format simplified memos;
- Process memos from arranged and semi-arranged copy;
- Format standard memos;
- Process standard memos from model and semi-arranged copy;
- Expand knowledge of simplified and standard memo formats;
- Establish and access Internet e-mail services;
- Format and process e-mail messages; and
- Process e-mail messages from arranged and semi-arranged copy.

Unit 8: Letters

In this unit, students will learn to format personal and business letters and envelopes in block format.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.1; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.4; and 8.1.12.B.6.
Career Education and Consumer, Family, and Life Skills	9.2.12..F.5
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Learn features and parts of personal-business letters in block format;
- Process personal-business letters in block format;
- Learn features and parts of business letters in block format;
- Process business letters in block format;
- Format envelopes; and
- Practice letter processing and correspondence formatting skills.

Unit 9: Tables

In this unit, students will use Table Formatting features to create a variety of tables.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.1; 8.1.12.B.10; and 8.1.12.B.12
Career Education and Consumer, Family, and Life Skills	9.1.12.B.3; and 9.2.12.F.5
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Learn placement/arrangement of basic table parts;
- Format tables using the key line method;
- Format multi-column tables with main, secondary, and column headings;
- Use table formatting features to join, merge, and split cells;
- Use table formatting features to change column widths, formats, and height and vertical alignment;
- Use table formatting features to apply shading, borders, and gridlines;
- Edit existing tables;
- Sort data in tables;
- Use table formatting features to add totals and footnotes; and
- Process tables from rough draft.

Unit 10: Unbound and Bound Reports

In this unit, students will learn to format unbound and bound reports.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.1; 8.1.12.A.7; 8.1.12.A.9; 8.1.12.B.4; 8.1.12.B.6; and 8.1.12.B.12.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.8; and 9.2.12.F.5.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Learn features of unbound and bound reports;
- Format a two-page unbound report;
- Process a report with listed items;
- Format a separate reference page;
- Process a multiple-page report;
- Process various documents in report format, such as book reports and play reviews;
- Improve speed/accuracy skills in processing reports.

Unit 12: MLA Reports

In this unit, students will learn to format MLA-style (Modern Language Association of America) reports.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.1; 8.1.12.A.7; 8.1.12.A.9; 8.1.12.B.4; 8.1.12.B.10; and 8.1.12.B.12;
Career Education and Consumer, Family, and Life Skills	9.1.12.B.8; and 9.2.12.F5
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Format a report in MLA style;
- Format topic outlines;
- Insert a table;
- Format title pages; and
- Format citations and bibliographies.

ASSESSMENT: ELECTRONIC PROCESSING I

Student proficiency (satisfactory achievement) in each of the outcomes and objectives listed in this guide shall be determined by individual student attainment of the 70% district passing grade requirement. Such proficiency shall be measured by multiple evaluation techniques and instruments, which includes but is not restricted to the following:

- General knowledge of computer terminology and its various special functions;
Class participation;
- Class work exercises – timed;
- Ability to follow oral and written directions;
- Ability to select and use good decision-making skills;
- Accuracy in editing and proofreading;
- Accuracy in word division;
- Simulations;
- Individual projects/activities;
- Teacher-made tests/quizzes;
- Teacher observation; and
- Ability to process a minimum of 30 words per minute.

**COURSE DESCRIPTION AND GOALS:
ELECTRONIC PROCESSING II
GRADES 10-12**

Electronic Processing II is a full year, five credit course offered in grades 10 through 12 and is an interdisciplinary area that contributes to students achieving the expected results set forth in the New Jersey Core Curriculum Content Standards for Technological Literacy. In addition, this course provides students with the opportunities to apply, and therefore reinforce, learning through the core curriculum content areas. The Electronic Processing II course shall give students a thorough background in electronic processing skills for business and personal use.

Suggested projects to reinforce basic skills will include:

- Daily class activities;
- Electronic processing simulations: These simulations will reinforce electronic processing skills previously learned and allow students to practice new skills in context; and
- Assessment activities found throughout each unit.

Broad-based areas of study that identify the skills in which students will be able to demonstrate proficiency as a result of instruction in Electronic Processing II are:

- Enhancement of previously learned electronic processing skills;
- Advanced electronic processing skills such as mail merge, tables, and reports with endnotes or footnotes as well as MLA format;
- Additional business and personal documents such as, facsimiles (fax), minutes, news releases, itineraries, and agendas;
- Resumes and other employment documents;
- Mail merge and develop database skills;

- Effective communications as they enhance documents with graphics, create flyers, work on newsletters, and even prepare business plans.
- Accurately process text at a speed of 30 words per minute for Electronic Processing I and 40 words per minute for Electronic Processing II;
- Import, export, and merge data stored in different formats (e.g., text, graphics) and between software programs;
- Identify and use advanced features of software products (e.g., galleries, templates, macros, mail merge);
- Use desktop publishing software to create a variety of publications;
- Use a spreadsheet to update, add, and delete data, and to write and execute valid formulas on data;
- Select and use relational databases, define fields, input data from multiple records, produce a report using sort and query, and interpret the data; and

Use presentation software to create multimedia products

**COURSE CONTENT AND RELATED STUDENT
OBJECTIVES/OUTCOMES:
ELECTRONIC PROCESSING II
GRADES 10-12**

Unit 1: Review and Extend Basic Knowledge

Students will refine their keying skills and review formats of correspondence, e-mail, memos, letters, and language usage skills.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Demonstrate knowledge of letter parts including block letters;
- Demonstrate knowledge of memos and e-mails formats;
- Demonstrate knowledge of block and modified block letter format, including two-page letters with headings;
- Demonstrate knowledge of various punctuation formats, including mixed and open;
- Demonstrate knowledge of form letters; and
- Apply language usage skills.

Unit 2: Review and Extend Formatting Skills

In this unit, students will enhance their information processing skills. Students will focus on improving speed and accuracy. In addition, students will learn advanced formatting skills of unbound, bound, and MLA-style reports.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Practice MLA-style report formatting skills;
- Format a topic outline;
- Insert a table in an MLA-style report;
- Process title pages;
- Format citations, footnotes, endnotes, and references; and
- Apply report formatting skills.

Unit 3: Advanced Word Processing

Students will develop advanced word processing skills, and use skills in various documents including news releases, itineraries, and agendas.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Format news releases;
- Format itineraries; and
- Format agendas.

Unit 4: Employment Documents

Students will extend their skill in word processing and keyboarding by processing resumes and other employment documents. Students will have an opportunity to present their best qualities to prospective employers by representing the content of the documents as well as accuracy, correct format, and neatness.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Career Education and Consumer, Family, and Life Skills	9.1.12.B.2; 9.1.12.B.4; 9.1.12.B.7; 9.1.12.B.8; 9.2.C.1; and 9.2.12.C.2.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Compose and revise application letters;
- Compose and revise resumes;
- Compose and revise follow-up letters;
- Identify typical information and prepare job application forms;
- Identify typical tasks in a document processing employment test; and
- Take an employment test.

Unit 6: Database Software

Students will extend their skill in word processing and keyboarding to process information. Students will learn mail merge and develop database skills.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students successfully:

- Create a data source file;
- Use mail merge to prepare envelopes and mailing labels;
- Create main document files;
- Use mail merge to create personalized form letters, labels, and envelopes;
- Edit data source files;
- Mail merge to prepare form letters with a fill-in field;
- Add records to an existing database;
- Create a database and table;
- Create a database table;
- Create a new table in an existing database;
- Add new records to update a database;
- Add new fields; and
- Edit records.

Unit 7: Desktop Publishing

Students will extend their skill in word processing and keyboarding to process information. Students will create flyers, news articles and prepare a newsletter.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will be able to successfully:

- Prepare one-column flyers using shapes, word art, 3-D effects, and text boxes; Prepare documents using preset newspaper-style columns, text boxes, shaded paragraphs, justified lines, and drop caps; and
- Prepare documents with balanced columns, different numbers of columns on a page, and a watermark.

Unit 8: Spreadsheet Software

Students will extend their skill in word processing and keyboarding to process information. Students will create spreadsheets using the appropriate software.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Merge cells, wrap and indent text in cells, and specify column widths;
- Use print preview and print in landscape orientation;
- Change margins, center and scale worksheets, and insert headers and footers;
- Check spelling, set page breaks, and select print range;
- Sort worksheet information alphabetically and numerically;
- Freeze and hide columns and rows; and
- Apply previously learned formatting and formula skills.

Unit 9: Presentation Software

Students will learn the use of software to create visual presentations that may be projected on a large screen or viewed directly on a computer.

References from the NJ Core Curriculum Content Standards are as follows:

Technological Literacy	8.1.12.A.5; 8.1.12.A.7; 8.1.12.A.8; 8.1.12.A.9; 8.1.12.B.1; 8.1.12.B.3; 8.1.12.B.4; 8.1.12.B.6; 8.1.12.B.7; 8.1.12.B.8; 8.1.12.B.9; 8.1.12.B.10; 8.1.12.B.12; 8.2.12.B.2; 8.2.12.B.3; and 8.2.12.B.6.
Language Arts Literacy	3.1.12.A.1; 3.1.12.C.1; 3.1.12.C.2; 3.1.12.C.3; 3.1.12.D.1; 3.1.12.D.2; 3.1.12.D.3; 3.2.12.A.2; 3.2.12.A.4; 3.2.12.A.5; 3.2.12.C.1; 3.2.12.C.2; 3.2.12.C.5; and 3.2.12.C.6.

STUDENT OBJECTIVES/OUTCOMES

Given appropriate learning activities, students will successfully:

- Understand the purpose of electronic presentations;
- Learn about electronic presentation features;
- Learn basic electronic presentation terminology; and
- Apply presentation templates.

ASSESSMENT: ELECTRONIC PROCESSING II

Student proficiency (satisfactory achievement) in each of the outcomes and objectives listed in this guide shall be determined by individual student attainment of the 70% district passing grade requirement. Such proficiency shall be measured by multiple evaluation techniques and instruments, which includes but is not restricted to the following:

- General knowledge of computer terminology and its various special functions;
Class participation;
- Class work exercises – timed;
- Ability to follow oral and written directions;
- Ability to select and use good decision-making skills;
- Accuracy in editing and proofreading;
- Simulations;
- Individual projects/activities;
- Teacher-made tests/quizzes;
- Teacher observation; and
- Ability to process a minimum of 40 words per minute.

INSTRUCTIONAL RESOURCES: ELECTRONIC PROCESSING I & II

BOOKS

Hoggatt, Jack; Shank, Jon; Crawford, T. James; and Robinson, Jerry. Century 21 Computer Applications & Keyboarding, 6th Edition. South-Western Educational Publishing Company: Mason, Ohio.

Hoggatt, Jack; Shank, Jon; and Robinson, Jerry. Century 21 Computer Applications & Keyboarding, 7th Edition. South-Western Educational Publishing Company: Mason, Ohio.

SOFTWARE

Microsoft Office

Mavis Beacon

MicroType 3.0

INTERNET RESOURCES

www.typingmaster.com

www.Learn2type.com

www.Teachervision.com

www.c21key.swep.com

www.yahoo.com

www.hotmail.com

SUPPLEMENTAL MATERIALS

Supplemental materials will be used to reinforce lessons from the text. Sources for materials include those supplied with the text.