Orange Public Schools
Computer Applications

OBE Approval Date: **October 13, 2015**

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Curriculum Computer Applications I & II

Content Area:	CTE	Grade(s)	9-12
Unit Plan Title:	Computer Applications I & II		

Common Core Anchor Standard

- ☐ English Language Arts Standards » Anchor Standards » College and Career Readiness Anchor Standards for Reading
- ☐ Key Ideas and Details:
- ☐ CCSS.ELA-LITERACY.CCRA.R.1
  Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
- ☐ CCSS.ELA-LITERACY.CCRA.R.2
  Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
- ☐ Craft and Structure:
- ☐ CCSS.ELA-LITERACY.CCRA.R.4
  Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- ☐ CCSS.ELA-LITERACY.CCRA.R.5
  Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
- ☐ CCSS.ELA-LITERACY.CCRA.R.6
  Assess how point of view or purpose shapes the content and style of a text.
- ☐ Integration of Knowledge and Ideas:
- ☐ CCSS.ELA-LITERACY.CCRA.R.7
  Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
- ☐ CCSS.ELA-LITERACY.CCRA.R.8
  Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
- ☐ Range of Reading and Level of Text Complexity:
- ☐ CCSS.ELA-LITERACY.CCRA.R.10
  Read and comprehend complex literary and informational texts independently and proficiently.
- ☐ English Language Arts Standards » Anchor Standards » College and Career Readiness Anchor Standards for Writing
- ☐ Text Types and Purposes:
- ☐ CCSS.ELA-LITERACY.CCRA.W.2
  Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- ☐ CCSS.ELA-LITERACY.CCRA.W.3
  Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.
- ☐ Production and Distribution of Writing:

- CCSS.ELA-LITERACY.CCRA.W.4

  Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.CCRA.W.5

  Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- CCSS.ELA-LITERACY.CCRA.W.6

  Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
- Research to Build and Present Knowledge:
- CCSS.ELA-LITERACY.CCRA.W.7

  Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- CCSS.ELA-LITERACY.CCRA.W.8

  Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- CCSS.ELA-LITERACY.CCRA.W.9

  Draw evidence from literary or informational texts to support analysis, reflection, and research.
- Range of Writing:
- CCSS.ELA-LITERACY.CCRA.W.10

  Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.
- English Language Arts Standards » Anchor Standards » College and Career Readiness Anchor Standards for Speaking and Listening
- Comprehension and Collaboration:
- CCSS.ELA-LITERACY.CCRA.SL.1

  Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-LITERACY.CCRA.SL.2

  Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- CCSS.ELA-LITERACY.CCRA.SL.3

  Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
- Presentation of Knowledge and Ideas:
- CCSS.ELA-LITERACY.CCRA.SL.4

  Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.CCRA.SL.5

  Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
- CCSS.ELA-LITERACY.CCRA.SL.6

  Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.
- English Language Arts Standards » Anchor Standards » College and Career Readiness Anchor Standards for Language

- Conventions of Standard English:
- CCSS.ELA-LITERACY.CCRA.L.1

  Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- CCSS.ELA-LITERACY.CCRA.L.2

  Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Knowledge of Language:
- CCSS.ELA-LITERACY.CCRA.L.3

  Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
- Vocabulary Acquisition and Use:
- CCSS.ELA-LITERACY.CCRA.L.4

  Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
- CCSS.ELA-LITERACY.CCRA.L.5

  Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
- CCSS.ELA-LITERACY.CCRA.L.6

  Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.

Overview/Rationale

**The Orange Board of Education
Vision and Mission Statement**

Vision

"The Orange Public School District commits to provide a safe and caring environment where each student is expected to grow and succeed. We pledge to prepare all students with equitable opportunities for college and career readiness, leading to lifelong learning and responsible citizenship in a competitive global community."

Mission

- The Orange Public School District in collaboration with all stakeholders is responsible for promoting the academic, social, emotional and personal success of all students.

- With a commitment to academic excellence, the district provides teachers, families, and administrators the tools needed for all students to reach their full potential.

- The district serves all students in our schools, acknowledging their unique backgrounds, cultural perspectives and learning styles.

- The district recognizes that curiosity, discipline, integrity, responsibility and respect are necessary for success.

- The Orange Public School District cultivates a community of 21st century learners where students take ownership of the learning process, achieve high standards of excellence, and focus on academics.

No Alibis, No Exceptions, No Excuses!

A note to the teacher, this curriculum guide is a work in progress; teachers are encouraged to make modifications or corrections to the guide.

Philosophy Statement:
Computer scientists play a central role in our technological infrastructure. They develop hardware, software and other applications for use by the military, businesses and average consumers. This has made computer science one of the fastest-growing career fields in the U.S. today, with some occupations, such as software engineer, expected to grow an estimated 22 percent from 2012 to 2022. While this means tremendous opportunity for students and young professionals interested in the field, it also means increased competition, both at the college level and in the job market. (http://www.computerscienceonline.org/cs-programs-before-college/)

Course Description:
Computer Applications is a half year course designed to expand student knowledge of correct keyboarding techniques, their basic understanding of the computer and various types of computer applications, code and terms.

Computer Applications I is designed to bring students to a basic level of proficiency in applying computer technology in the educational setting. Emphasis will be placed on file-management and appropriate technology use in a network environment. Students will be introduced to fundamental computer concepts, beginning keyboarding skills, word-

processing, multi-media presentations, Internet applications and spreadsheets. Special attention will be devoted to legal issues, copyright law, and safety. Application of technology in the workplace will be emphasized. Computer Applications I is a pre-requisite for Computer Applications II.

Computer Applications II focuses on a simulated work environment with clients and work orders using Word, Excel, Desk Top Publishing, Access and PowerPoint. To successfully complete Computer Applications II, students must complete ALL work orders in the Word segment, taking them from basic to advanced word processing skills. It's anticipated that students will progress towards taking the Microsoft Office Specialist Certification exam which has an exam fee not exceeding $100. Microsoft Office Certification is a workplace skill that will open many career pathways for students who obtain this certification.

Standard(s)

Career Ready Practices
 Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.
CRP1. Act as a responsible and contributing citizen and employee.
CRP2. Apply appropriate academic and technical skills.
CRP3. Attend to personal health and financial well-being.
CRP4. Communicate clearly and effectively and with reason.
CRP5. Consider the environmental, social and economic impacts of decisions.
CRP6. Demonstrate creativity and innovation.
CRP7. Employ valid and reliable research strategies.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP9. Model integrity, ethical leadership and effective management.
CRP10. Plan education and career paths aligned to personal goals.
CRP11. Use technology to enhance productivity.
CRP12. Work productively in teams while using cultural global competence.

CRP1. Act as a responsible and contributing citizen and employee.
Career-ready individuals understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.

CRP2. Apply appropriate academic and technical skills.
Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation.

CRP3. Attend to personal health and financial well-being.

Career-ready individuals understand the relationship between personal health, workplace performance and personal well-being; they act on that understanding to regularly practice healthy diet, exercise and mental health activities. Career-ready individuals also take regular action to contribute to their personal financial wellbeing, understanding that personal financial security provides the peace of mind required to contribute more fully to their own career success.

CRP4. Communicate clearly and effectively and with reason.

Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others᾽ time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.

CRP5. Consider the environmental, social and economic impacts of decisions.

Career-ready individuals understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.

CRP6. Demonstrate creativity and innovation.

Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

CRP7. Employ valid and reliable research strategies.

Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform strategies. They use reliable research process to search for new information. They evaluate the validity of sources when considering the use and adoption of external information or practices in their workplace situation.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

CRP9. Model integrity, ethical leadership and effective management.

Career-ready individuals consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and

actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.

CRP10. Plan education and career paths aligned to personal goals.
Career-ready individuals take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

CRP11. Use technology to enhance productivity.
Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

CRP12. Work productively in teams while using cultural global competence.
Career-ready individuals positively contribute to every team, whether formal or informal. They apply an awareness of cultural difference to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

- ☐ CONTENT AREA: 21ST CENTURY LIFE AND CAREERS
- ☐ By the end of Grade 12, students will be able to :
- ☐ 9.1.12.A.3: Analyze the relationship between various careers and personal earning goals.
- ☐ 9.1.12.A.4: Identify a career goal and develop a plan and timetable for achieving it, including educational/training requirements, costs, and possible debt.
- ☐ 9.1.12.B.6: Design and utilize a simulated buget to monitor progress of financial plans.
- ☐ 9.2.12.C.1: Review career goals and determine steps necessary for attainment.
- ☐ 9.2.12.C.3: Identify transferable career skills and design alternate career plans.
- ☐ 9.2.12.C.5: Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures.
- ☐ 9.3.12.BM.1: Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.
- ☐ 9.3.12.BM.4: Identify, demonstrate and implement solutions in managing effective business customer relationships.
- ☐ 9.3.12.BM-ADM.2: Access, evaluate and disseminate information for business decision making.
- ☐ 9.3.12.BM-BIM.1: Describe and follow laws and regulations affecting business operations and transactions.
- ☐ 9.3.12.BM-BIM.2: Plan, monitor, manage and maintain the use of financial resources to ensure a business's financial wellbeing.
- ☐ 9.3.12.BM-BIM.3: Access, evaluate and disseminate information for business decision making.
- ☐ 9.3.21.BM-MGT.1: Describe and follow laws and regulations affecting business operations and transactions.
- ☐ 9.3.12.BM-MGT.2: Access, evaluate and disseminate information for business decision making.

- 9.3.12.BM-MGT.4: Employ and manage techniques, strategies and systems to enhance business relationships.
- 9.3.12.BM-HR.3: Motivate and supervise personnel to achieve completion of projects and business goals.
- 9.3.12.BM-OP.1: Describe and follow laws and regulations affecting business operations and transactions.
- 9.3.12.BM-OP.2: Develop and maintain positive customer relationships.
- 9.3.12.BM-OP.3: Apply inventory tracking systems to facilitate operational controls.
- 9.3.12.ED.1: Apply communication skills with students, parents and other groups to enhance learning and a commitment to learning.
- 9.3.12.ED.2: Demonstrate effective oral, written and multimedia communication in multiple formats and contexts.
- 9.3.12.ED.3: Use critical thinking to process educational communications, perspectives, policies and/or procedures.
- 9.3.12.ED.5: Demonstrate group collaboration skills to enhance professional education and training practice.
- 9.3.12.ED.8: Demonstrate ethical and legal behavior within and outside of education and training settings.
- 9.3.12.ED.11: Demonstrate group management skills that enhance professional education and training practice.
- 9.3.12.ED-ADM.2: Identify behaviors necessary for developing and sustaining a positive learning culture.
- 9.3.12.FN.1: Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision making in the finance industry.
- 9.3.12.FN.2: Utilize tools, strategies and systems to plan, monitor, manage and maintain the use of financial resources.
- 9.3.IT.2: Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
- 9.3.IT.4: Demonstrate positive cyber citizenry by applying industry accepted ethical practices and behaviors.
- 9.3.IT.5: Explain the implications of IT on business development.
- 9.3.IT.6: Describe trends in emerging and evolving computer technologies and their influence on IT practices.
- 9.3.IT.12: Demonstrate knowledge of the hardware components associated with information systems.
- 9.3.IT-PRG.6: Program a computer application using the appropriate programming language.
- 9.3.IT-PRG.10: Design, create and maintain a database.
- 9.3.IT-WD.10: Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.
- 9.3.ST.2: Use technology to acquire, manipulate, analyze and report data.
- 9.3.ST.4: Understand the nature and scope of the Science, Technology, Engineering & Mathematics Career Cluster and the role of STEM in society and the economy
- 9.3.ST.5: Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the Science, Technology, Engineering & Mathematics Career Pathways.
- 9.3.ST.6: Demonstrate technical skills needed in a chosen STEM field.
- 9.3.ST-ET.3: Apply processes and concepts for the use of technological tools in STEM.
- 9.3.ST-ET.4: Apply the elements of the design process.
- 9.3.ST-ET.5: Apply the knowledge learned in STEM to solve problems.

Technology Standard(s)	Interdisciplinary Standard(s)

- 8.1.12.A.1: Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
- 8.1.12.A.2: Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
- 8.1.12.D.1: Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
- 8.1.12.D.4: Research and understand the positive and negative impact of one's digital footprint.
- 8.2.12.A.3: Research and present information on an existing technological product that has been repurposed for a different function.
- 8.2.12.B.2: Evaluate ethical considerations regarding the sustainability of environmental resources that are used for the design, creation and maintenance of a chosen product.
- 8.2.12.B.3: Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
- 8.2.12.B.4: Investigate a technology used in a given period of history, e.g., stone age, industrial revolution or information age, and identify their impact and how they may have changed to meet human needs and wants.
- 8.2.12.C.2: Analyze a product and how it has changed or might change over time to meet human needs and wants.
- 8.2.12.C.3: Analyze a product or system for factors such as safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, and human factors engineering (ergonomics).
- 8.2.12.D.6: Synthesize data, analyze trends and draw conclusions regarding the effect of a technology on the individual, society, or the environment and publish conclusions.
- 8.2.12.E.1: Demonstrate an understanding of the problem-solving capacity of computers in our world.
- 8.2.12.E.2: Analyze the relationships between internal and external computer components.

- ELA Key Ideas and Details:
- CCSS.ELA-LITERACY.RST.9-10.1: Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
- CCSS.ELA-LITERACY.RST.9-10.2 Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
- CCSS.ELA-LITERACY.RST.9-10.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
- Craft and Structure:
- CCSS.ELA-LITERACY.RST.9-10.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics.
- CCSS.ELA-LITERACY.RST.9-10.5 Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
- CCSS.ELA-LITERACY.RST.9-10.6 Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.
- Integration of Knowledge and Ideas:
- CCSS.ELA-LITERACY.RST.9-10.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
- CCSS.ELA-LITERACY.RST.9-10.8 Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or

- 8.2.12.E.3: Use a programming language to solve problems or accomplish a task (e.g., robotic functions, website designs, applications, and games).
- 8.2.12.E.4: Use appropriate terms in conversation (e.g., troubleshooting, peripherals, diagnostic software, GUI, abstraction, variables, data types and conditional statements).

- technical problem.
- CCSS.ELA-LITERACY.RST.9-10.9
Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
- Range of Reading and Level of Text Complexity:
- CCSS.ELA-LITERACY.RST.9-10.10
By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.
- English Language Arts Standards » Writing » Grade 9-10
- Text Types and Purposes:
- CCSS.ELA-LITERACY.WHST.9-10.1
Write arguments focused on discipline-specific content.
- CCSS.ELA-LITERACY.WHST.9-10.1.A
Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.
- CCSS.ELA-LITERACY.WHST.9-10.1.B
Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns.
- CCSS.ELA-LITERACY.WHST.9-10.1.C
Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
- CCSS.ELA-LITERACY.WHST.9-10.1.D
Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- ☐ CCSS.ELA-LITERACY.WHST.9-10.1.E
  Provide a concluding statement or section that follows from or supports the argument presented.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2
  Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2.A
  Introduce a topic and organize ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2.B
  Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2.C
  Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2.D
  Use precise language and domain-specific vocabulary to manage the complexity of the topic and convey a style appropriate to the discipline and context as well as to the expertise of likely readers.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2.E
  Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- ☐ CCSS.ELA-LITERACY.WHST.9-10.2.F
  Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
- ☐ CCSS.ELA-LITERACY.WHST.9-10.3

	(See note; not applicable as a separate requirement)
	☐ Production and Distribution of Writing:
	☐ CCSS.ELA-LITERACY.WHST.9-10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
	☐ CCSS.ELA-LITERACY.WHST.9-10.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
	☐ CCSS.ELA-LITERACY.WHST.9-10.6 Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
	☐ Research to Build and Present Knowledge:
	☐ CCSS.ELA-LITERACY.WHST.9-10.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
	☐ CCSS.ELA-LITERACY.WHST.9-10.8 Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
	☐ CCSS.ELA-LITERACY.WHST.9-10.9 Draw evidence from informational texts to support analysis, reflection, and research.
	☐ Range of Writing:
	☐ CCSS.ELA-LITERACY.WHST.9-10.10 Write routinely over extended time frames

(time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

☐ CCSS.MATH.CONTENT.HSN.Q.A.1
Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

☐ CCSS.MATH.CONTENT.HSN.Q.A.2
Define appropriate quantities for the purpose of descriptive modeling.

☐ CCSS.MATH.CONTENT.HSN.Q.A.3
Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

☐ CCSS.MATH.CONTENT.HSS.IC.B.6
Evaluate reports based on data.

☐ 6.1.12.C.16.a: Evaluate the economic, political, and social impact of new and emerging technologies on individuals and nations.

Essential Question(s)

☐ How is document content created and refined?
☐ When and why should tables be used to effectively organize and communicate information?
☐ Which Word features facilitate collaborative editing of documents?
☐ How can documents be flexible for various uses?
☐ How can software be useful for full communication, as well as personal organization? (Outlook)
☐ How can data be organized efficiently?
☐ How can spreadsheets be formatted to enhance effectiveness?
☐ What features allow mathematical computations on data?
☐ Why is visual presentation necessary for concise communication?
☐ Why is organization of spreadsheets into workbooks a useful data management tool?

Enduring Understandings

Students will be able to:
- [ ] insert and edit text, symbols, and special characters
- [ ] insert frequently-used and predefined text
- [ ] navigate to specific content
- [ ] insert, position, and size graphics
- [ ] create and modify diagrams and charts
- [ ] locate, select, and insert supporting information
- [ ] insert and modify tables
- [ ] create bulleted lists, numbered lists, and outlines
- [ ] insert and modify hyperlinks
- [ ] add a table to a Word document and add content to the table
- [ ] edit the structure of a table
- [ ] format a basic table and its contents
- [ ] format text
- [ ] format paragraphs
- [ ] apply and format columns
- [ ] insert and modify content in headers and footers
- [ ] modify document layout and page setup
- [ ] circulate documents for review
- [ ] compare and merge documents
- [ ] insert, view, and edit comments
- [ ] track, accept, and reject proposed changes
- [ ] create new documents using templates
- [ ] review and modify document properties
- [ ] organize documents using file folders
- [ ] save documents in appropriate formats for different uses
- [ ] print documents, envelopes, and labels
- [ ] preview documents and web pages
- [ ] change and organize document views and windows
- [ ] originate and respond to email and instant messages
- [ ] attach files to items
- [ ] create and modify a personal signature for messages
- [ ] modify email message settings and delivery options
- [ ] create and edit contacts
- [ ] accept, decline, and delegate tasks
- [ ] create and modify appointments, meetings, and events
- [ ] update, cancel, and respond to meeting requests
- [ ] customize calendar settings
- [ ] create, modify, and assign tasks
- [ ] create and modify distribution lists
- [ ] import and merge contacts into multiple documents
- [ ] create and modify notes
- [ ] organize files using folders

- ☐ enter and edit cell content
- ☐ locate specific cell content
- ☐ locate, select, and insert supporting information
- ☐ insert, position, and size graphics
- ☐ insert data by using AutoFill
- ☐ ensure data integrity
- ☐ change worksheet views
- ☐ apply and modify cell formats, content, and styles
- ☐ insert and modify row and column formats
- ☐ format data as a table
- ☐ format worksheets
- ☐ filter lists using the AutoFilter feature
- ☐ sort lists
- ☐ insert and modify formulas
- ☐ reference data in formulas
- ☐ summarize data by using subtotals
- ☐ conditionally summarize data by using a formula
- ☐ use conditional logic in a formula
- ☐ format or modify text by using formulas
- ☐ display and print formulas
- ☐ use statistical, date and time, financial, and logical functions
- ☐ create, modify, and position diagrams and charts based on worksheet data
- ☐ insert, view, and edit comments
- ☐ apply conditional formatting
- ☐ outline data
- ☐ sort and filter data
- ☐ create new workbooks from templates
- ☐ insert, delete, and move cells
- ☐ create and modify hyperlinks
- ☐ organize worksheets
- ☐ preview data in other views
- ☐ customize window layout
- ☐ setup pages for printing
- ☐ print data
- ☐ organize workbooks using file folders
- ☐ save data in appropriate formats for different uses
- ☐ protect, share, and distribute workbooks

In this unit plan, the following 21st Century themes and skills are addressed.

Check all that apply.
21st Century Themes

Indicate whether these skills are E-Encouraged, T-Taught, or A-Assessed in this unit by marking E, T, A on the line before the appropriate skill.
21st Century Skills

	21st Century Themes		21st Century Skills
T	Global Awareness	T	Creativity and Innovation
	Environmental Literacy	A	Critical Thinking and Problem Solving
	Health Literacy	T	Communication
T	Civic Literacy	T	Collaboration
T	Financial, Economic, Business, and Entrepreneurial Literacy		

Student Learning Targets/Objectives

- ☐ This course is designed to prepare students for the workplace by helping them become comfortable using a computer. When they complete this course, they should be able to do the following:
- ☐ Explain how a computer operates.
- ☐ Demonstrate knowledge of laws and ethics related to computer and Internet use.
- ☐ Use the Internet to find information and cite sources correctly.
- ☐ Demonstrate correct keyboarding techniques.
- ☐ Create documents, spreadsheets, and presentations.
- ☐ Discuss emerging global business trends.
- ☐ Recognize a potential career path and identify steps they need to take to prepare themselves for the work force.
- ☐ Demonstrate research skills for course project.
- ☐ Manipulate Microsoft Office productivity software.
- ☐ Operate internet structured learning applications.
- ☐ Show proficiency with presentation software.
- ☐ Create formal presentation.
- ☐ Rewrite narrative drafts.
- ☐ Tell an audience of their peers about their career research and findings.
- ☐ Attach relevant videos, text and other messages to their presentations and research.
- ☐ Describe emerging global business trends.
- ☐ Interpret career research and work force responsibilities.
- ☐ Summarize vocabulary, processes and actions in the computer world.

Assessments

- ☐ Pre and Formative: Do Now, Exit Ticket
- ☐ Summative: Vocabulary Tests
- ☐ Other assessment measures: Creation of projects using various software applications.

		Teaching and Learning Actions
D	*Instructional Strategies*	Class materials presented through auditory and visual channels, teachers notes will be accessible, other modifications will be made as per IEP's or other individual needs.
D	*Activities*	Selected readings and notes, research on career of their choice, workbook assignments, case studies, graphic organizers, journal and vocabulary entries and exploration, homework.
D	*Experiences*	Trip to the Federal Reserve Bank, NYC Financial District Walking Tour, Newark Financial District Tour.

Resources

- ☐ Typing.edu
- ☐ CODE.org
- ☐ Microsoft Office Suite
- ☐ Weebly.com
- ☐ Padlet.com
- ☐ DiscoveryEducation.com
- ☐ Learning.com
- ☐ SpellingCity.com
- ☐ Google.com Classroom
- ☐ www.learnthenet.com

D- Indicates differentiation at the Lesson Level.

Suggested Time Frame:	20 Weeks (Group One September to January, Group Two February to June)

Computer Applications is a half year elective for students in grades 9-12. The course is taught in a block scheduling environment of eighty (80) minutes where student contact is three (3) days one week and two (2) days the following week. Some courses are scheduled during a split block where students meet for forty (40) minutes, depart for lunch and return for an additional forty (40) minutes of instruction. A final grade of 65 (the average of two semesters) is required to earn 2.5 credits towards their HS Diploma; however the District minimum grade for academic success is 72 or higher.

COMPUTER APPLICATIONS ONE

Unit One	*Explanation of course requirement and expectations including distribution of class rules and rubrics for long-term assignments, pre-assessments (SGO raw data), course software overview; The Internet*
Unit Two	*Electronic Communication / Digital Citizenship / Online Safety*
Unit Three	*Word Processing*
Unit Four	*Desktop Publishing and PowerPoint*
Unit Five	*Spreadsheets / Databases*
Unit Six	*CODE.Org / SGO Post Assessments / Presentations*

COMPUTER APPLICATIONS TWO

Unit One	*Introduction to Course* *Getting to Know the Clients* *Organizing Project Files* *Microsoft Word - Twenty Work Orders* *Microsoft Access Review for Work Order Seventeen*
Unit Two	*Microsoft Excel – Fifteen Work Orders*
Unit Three	*Microsoft PowerPoint – Seven Work Orders*
Unit Four	*Microsoft Access – Nine Work Orders*
Unit Five	*Microsoft Desktop Publishing – Ten Work Orders*
Unit Six	*Microsoft Office Certification Practice Exam / Certification Exam*

Microsoft Office Specialist Certification Contact

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Exam Preparation and Resources
- **Practice Exams (GMetrix): Available as a seat or individual license <u>GMetrix Demo</u>**
- **Office 2010/2013 ECourse, built in projects and assessments, quizzes, e-textbook and lesson plans. $750 up to 30 users, $1,200 up to 100 users. <u>ECourse Demo</u>**
- **Hardback and E-Books available for all applications. Pricing and demo's upon request**

Exam Options	Price
Single	$72.00
Exam w/retake	$86.26
Exam License	$3,350
GMetrix Practice License 10 Seat	$695

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