

DELAWARE VALLEY SCHOOL DISTRICT

PLANNED INSTRUCTION

A PLANNED COURSE FOR:

Computer Applications

Grade Level:

9-12

Date of Board Approval: _____ 2016 _____

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Planned Instruction

Title of Planned Instruction: Computer Applications

Subject Area: Business Education Grade(s): 9-12

Course Description:

This course has been designed to combine the concepts of previously separate courses of Cyberskills, Computer Literacy, and Desktop Publishing. Using Microsoft Office and Google Applications, students will learn how to effectively create and maintain various types of documents including but not limited to business documents, spreadsheets, database applications, desktop publishing designs, and research papers. Students will also learn how to perform efficient Internet searches and gather credible information while maintaining a secure cloud presence, and be aware of their communication interactions while online. Students will also have the opportunity to work with various devices and applications through iPads and Chromebooks. A mixture of hands-on activities, comprehensive projects, writing assignments, and presentations will be used throughout the course. This is a project-based course which relies heavily on successful independent work skills. A basic understanding of existing office programs is suggested

Time/Credit for the Course: One Semester/ 2 Marking Periods

Curriculum Writing Committee: JoAnne Yanko

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Curriculum Map

1. Marking Period One: Advanced Office Concepts, 45 days

Marking Period One -Goals: To enhance prior skills of Microsoft Office Programs and integrate concepts across programs

Understanding of:

- Introductory concepts of Microsoft Access
- Advanced concepts of Microsoft Word, Excel, Power Point, Publisher
- Integration of concepts across Office programs

2. Marking Period Two: Internet Research, Digital Citizenship, Cloud Application technologies/Personal Device Applications 45 days

Marking Period Two -Goals: To provide efficient practices in internet research; creating, storing, and editing documents in cloud applications and personal devices; protecting information from potential cyber-threats and learning digital etiquette.

Understanding of:

- Using online academic tools to locate credible academic information
- Using Google Drive and its applications to create and maintain documents, and collaborate with others
- Applying best practices to protect information and identity when using electronic devices and programs
- Applying best practices when participating in online communication

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UNIT 1: Microsoft Office Specialist

Big Idea # 1: Computer and Information Technologies: Computer technology is a data management and communication tool essential for business and personal productivity, problem solving, and decision making in the global world.

Essential Questions: What are the considerations when selecting a technology tool to solve a problem, complete a task, or manage information?

Concepts: Computer Fundamentals

Competencies: Select appropriate input and output technologies to optimize performance for a specific assignment.

Concepts: Technology Applications

Competencies: Demonstrate the ability to transfer skills among applications.

Unit 2: Effective Internet Research

Big Idea #1: Computer and Information Technologies: Computer technology is a data management and communication tool essential for business and personal productivity, problem-solving, and decision making in the global world.

Essential Question: What are the considerations when selective a technology tool to solve a problem, complete a task, or manage information?

Concepts: Technology Applications

Competencies: Evaluate and select digital tools most appropriate to complete a task

Unit 3: Digital Citizenship

Big Idea #1 Computer and Information Technologies: Computer technology is a data management and communication tool essential for business and personal productivity, problem-solving, and decision making in the global world.

Essential Question: How do legal and ethical issues affect digital citizenship?

Concepts: Law and Ethics
Technology Applications

Competencies:
Analyze legal an ethical issues with the framework of current legislation

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Analyze copyright, patent, and trademark laws in program development and use

Evaluate how computer use affects privacy, safety, and personal security

Model digital etiquette and responsible social interactions related to use of technology

Model safe, legal, and ethical use of digital information and technology

Unit 4: Google Drive/Cloud Application Technologies

Big Idea #1 Computer and Information Technologies: Computer technology is a data management and communication tool essential for business and personal productivity, problem-solving, and decision making in the global world.

Essential Question: How do emerging technologies impact the quality of life?

Concept: Computer fundamentals

Competency: Examine how information technology changes the context of personal and professional responsibilities.

Evaluate how technological changes relate to lifelong learning and retraining.

Concept: Technology Management

Competency: Develop a plan to incorporate emerging technologies to maximize productivity within organizations.

Concept: Technology Applications

Competency: Analyze the impact of technology on productivity and collaboration tools.

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Curriculum Plan

Unit 1: Microsoft Office Specialist

Time Range in Days:

45 days

Standard(s):

PA Core Writing for Science and Technical Subjects: CC3.6.11-12.A, B, E, G

PA Core Reading for Science and Technical Subjects: CC.3.5.11-12.D, G

PA Core BCIT: 15.4.12.A, C, D, G, K

PA Career Education and Work: 13.1.11.A, B. 13.4.11.B

ISTE Standards 1-5

Anchors: R11.B.3 and R.11.A.2

Overview: Students will use textbooks, data files, and various software programs to create and edit documents according to the requirements set in the textbook.

Focus Question(s): What are the considerations when selecting a technology tool to solve a problem, complete a task, or manage information?

Goals: Select appropriate input and output technologies to optimize performance for a specific assignment.

Objectives:

Identify the correct software program to complete assigned tasks (DOK 1,2)

Implement prior computer skills to complete assigned tasks (DOK 2,3)

Review completed documents to required standards (DOK 3)

Core Activities and Corresponding Instructional Methods:

- Create various documents in word processing, spreadsheet, presentation, and desktop publishing software according to required standards set forth in each assignment.
- Utilizing creativity and design skills to create and edit business logos.
- Implement technical writing skills to develop effective business documents.
- Exercise accounting (math) skills to project revenue and inventory spreadsheets
- Implement presentation skills to design slide shows.
- Use decision making and organization skills to maintain student document portfolio throughout the unit.
- Integrate Microsoft Office software to complete comprehensive real-world projects.

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Assessments:

Diagnostic: Participation in class discussions and demonstrations and response to questions and surveys

Formative: Completion of various activities throughout the unit

Summative: Quizzes, Projects, maintenance of document portfolio

Extensions: Students will be encouraged to add personalization and customization to their documents that maintain consistency and enhance the quality.

Correctives: Students will be able to make corrections to major projects; students will be able to access the online companion website for review of techniques

Materials and Resources:

Computers

Internet access

Microsoft Office: Word, Access, Excel, Publisher, Power Point

Presentations, handouts and sample documents

Extended websites www.theofficespecialist.com , www.microsoft.com

Primary Textbook(s) Used for this Course of Instruction

Name of Textbook: The Office Specialist.com

Textbook ISBN #: 1-934422-274

Textbook Publisher & Year of Publication: BE Publishing, 2011

Curriculum Textbook is utilized in (title of course): Computer Applications

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Unit 2: Effective Internet Research

Time Range in Days: 15 days

Standard(s):

PA Core Writing for Science and Technical Subjects: CC3.6.11-12.A, B, E, G

PA Core Reading for Science and Technical Subjects: CC.3.5.11-12.D, G

PA Core BCIT: 15.3.12.D, E

PA Career Education and Work: 13.1.11.A, B. 13.4.11.B

ISTE Standards 1-5

Anchors: R11.B.3 and R.11.A.2

Overview: Students will use multiple academic Internet resources, instructor-prepared notes and activities to achieve the goals and objectives listed below.

Focus Question(s): What are the considerations when selecting a technology tool to solve a problem, complete a task, or manage information?

Goals: Select appropriate input and output technologies to optimize performance for a specific assignment.

Objectives:

Apply the use of basic and advanced Internet tools such as search engines and academic databases, digital libraries, and subject directories (DOK 2, 3)

Analyze and determine the credibility and accuracy of a website (DOK 3, 4)

Apply effective navigation skills within websites to located specific information (DOK 2, 3)

Core Activities and Corresponding Instructional Methods

- Understand the basic concepts and technological terms associated with using the internet.
- Analyze the impact of internet research on a student's daily academic routine
- Discuss the benefits and drawbacks of the internet in education.
- Understand and compare how search engines work (Google vs Ask).
- Perform basic and advanced or "Deep" searches and analyze the results and ranking of results.
- Effectively navigate advanced websites such as libraries and subject directories to find specific information.
- Effectively determine opinion-based vs fact-based information presented on a website.
- Perform specialized searches using sample topics from other courses (English, History, Science).
- Correctly apply MLA and APA citation styles to electronic sources.

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- Use various consumer tools of the Internet to perform daily personal tasks such as banking, shopping, traveling, and education.

Assessments:

Diagnostic: Participation in class discussions and demonstrations and response to questions and surveys

Formative: Completion of various activities throughout the unit

Summative: Quizzes and Projects

Extensions: Students will be encouraged to find multiple sources for a topic and differentiate among the sources

Correctives: Students will be able to use multiple searches to identify credible information for projects and activities.

Materials and Resources:

Computers

Internet access

Microsoft Office: Word,

Instructor-created presentations, handouts and sample documents

Website list (includes but not limited to)

www.learnthenet.com

www.loc.gov

www.google.com

www.ask.com

www.about.com

www.ehow.com

www.ebsco.com

www.computerhope.com

www.discoveryeducation.com/

www.history.com

scholar.google.com

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Unit 3: Digital Citizenship

Time Range in Days: 15 days

Standard(s):

PA Core Writing for Science and Technical Subjects: CC3.6.11-12.A, B, E, G

PA Core Reading for Science and Technical Subjects: CC.3.5.11-12.D, G

PA Core BCIT: 15.3.12.T

15.4.12.B

PA Career Education and Work: 13.1.11.A, B. 13.4.11.B

ISTE Standards 1-5

Anchors: R11.B.3 and R.11.A.2

Overview: Students will complete lessons from Common Sense Media to learn the proper practices of safe communication using electronic devices. Students will learn about the potential threats to personal information in the electronic world.

Focus Question(s):

How do legal and ethical issues affect digital citizenship?

Goals:

Analyze legal and ethical issues with the framework of current legislation.

Analyze copyright, patent, and trademark laws in program development and use.

Evaluate how computer use affects privacy, safety, and personal security.

Model digital etiquette and responsible social interactions related to use of technology.

Model safe, legal, and ethical use of digital information and technology.

Objectives:

Analyze the role of media in everyday life (DOK 4)

Recognize the risk of sharing inappropriate information online (DOK 1, 2)

Summarize the legal and ethical considerations involved in using the creative work of others (DOK 2, 3)

Apply critical thinking and ethical decision making when using the creative work of others (DOK 4)

Identify the factors involved in cyberbullying; identify preventative and reactionary measures that can be taken in the presence of cyberbullying (DOK 2, 3)

Define digital citizenship and identify students' online responsibilities (DOK 1, 2)

Analyze examples of good and bad situations of online ethics (netiquette) (DOK 4)

Cite evidence of the risks and benefits of assuming different personas online and think critically about what it means to be genuine in an online context. (DOK 3)

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Identify the purpose of protecting personal information while online, respecting others' privacy online, and the importance of implementing privacy policies in companies (DOK 2, 3)

Core Activities and Corresponding Instructional Methods

- Complete activities throughout the unit that apply to the concepts from each of the Common Sense Media's lesson plans for grade range 9-12 in Digital Literacy and Citizenship . (Approximately 10 lessons).
- Quantify the role of media in one's everyday life by keeping track of technology exposure and use for an entire week and weekend.
- Assess the media and technology competence and weakness through a skill survey.
- Explore situations of media ignorance and identify possible outcomes.
- Define terms associated with digital citizenship.

Assessments:

Diagnostic: Participation in class discussions and demonstrations and response to questions and surveys

Formative: Completion of various activities throughout the unit

Summative: Quizzes and Projects

Extensions: Students will be encouraged to share experiences of digital citizenship and netiquette. Students will create awareness posters and handouts for cyberbullying

Correctives: Students will be able to complete activities outside of class to stay on track.

Materials and Resources:

Computes with Internet Access

Common Sense Media lesson plans for grades 9-12 on Digital Literacy and Citizenship

(www.commonensemedia.org)

Microsoft Office

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Unit 4: Google Drive/Cloud Applications **Time Range in Days:** **15 days**

Standard(s):

PA Core Writing for Science and Technical Subjects: CC3.6.11-12.A, B, E, G

PA Core Reading for Science and Technical Subjects: CC.3.5.11-12.D, G

PA Core BCIT: 15.3.12.U, V, W

15.4.12.B, D, G, K

PA Career Education and Work: 13.1.11.A, B. 13.4.11.B

ISTE Standards 1-5

Anchors: R11.B.3 and R.11.A.2

Overview: Students will complete lessons from multiple sources regarding the use of Google Drive and its applications. Students will learn how to create, edit, and collaborate within the cloud. Students will research other effective applications that can enhance their education.

Focus Question(s): How do emerging technologies impact the quality of life?

Goals:

Use various applications within Google Drive to enhance their academic experiences and stay organized.

Identify various other applications that can be used on personal computers and devices that can enhance both academic learning experiences and personal use.

Objectives:

Collaborate with other students using various cloud applications (DOK 4)

Identify and assess various other applications that can be used on personal computers and devices that can enhance both academic learning experiences and personal use (DOK 2,3)

Core Activities and Corresponding Instructional Methods

- Create and edit events on a Google Calendar
- Invite guests to an event
- Participate in a Google Group
- Create a folder in Google Drive
- Share a Google Drive folder
- Upload files to Google Drive
- Search for items in Google Drive

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- Create a new document in Google Docs
- Set permissions for sharing a document
- Format the document and insert images and hyperlinks
- Use the research tool from within a document to locate information about a topic
- Edit a shared document
- Use the revision history of a document to revert to a previous version
- Download and print a document
- Collaborate with others in a shared spreadsheet
- Apply formatting to cells, including text size, color, data type, and background color
- Use basic formulas to obtain data results in a spreadsheet
- Manage data in a spreadsheet by sorting and filtering
- Create a chart from data in a spreadsheet
- Convert a presentation from an uploaded file using Google Slides
- Insert images, video, and tables to a presentation
- Draw shapes on slides in a presentation
- Add animations to objects and transitions to slides in a presentation
- Add a theme to a presentation
- Create and edit a Google Form
- Distribute the form and collect responses
- Manage the response data
- Upload images to Google Photos
- Use basic editing tools in Google Photos to edit the images
- Share albums and images
- Create a custom map on Google Maps
- Edit locations on the map, add lines and shapes to the map
- Collaborate with others on a custom Google Map
- Create a virtual field trip using Google Earth
- Create and edit markers on a Google Earth document as well as add text, links, and images to the markers
- Use layers to access multiple features and views

Assessments:

Diagnostic: Participation in class discussions and demonstrations and response to questions and surveys

Formative: Completion of various activities throughout the unit

Summative: Quizzes and Projects

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Extensions: Students will be encouraged to use Google Drive to assist their schoolwork for other courses

Correctives: Students will be able to complete activities outside of class to stay on track.

Materials and Resources:

Computers with Internet Access

www.google.com/drive

Various instructor-prepared handouts and directions derived from lessons in *Using Google Apps*, Meghan Elrich and Monica Kinney, Goodheart-Wilcox Publishing, 2014

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Appendix

Full Text of Standards

PA Core Writing for Science and Technical Subjects

CC3.6.11-12.A: Write arguments focused on discipline-specific content.

CC3.6.11-12.B: Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

CC3.6.11-12.E: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

CC3.6.11-12.G: Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

PA Core Reading for Science and Technical Subjects

CC.3.5.11-12.D: 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 11–12 texts and topics.

CC.3.5.11-12.G: Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

PA Core Business, Computers, and Information Technology:

CC.15.3.12.D: Evaluate business materials (including web based resources) for value related to purpose, quality, and appropriateness.

CC.15.3.12.E: Evaluate chosen print and electronic resources for advanced research. Reference English Language Arts CC.1.4.11-12.U.

CC.15.3.12.T: Demonstrate application of digital citizenship in work and personal situations. Reference Business, Computer and Information Technologies 15.4.12.B.

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CC.15.3.12.U: Critique the effectiveness of various electronic communication options related to desired outcomes.

CC.15.3.12.V: Evaluate how mobile communication impacts businesses or organizations.

CC.15.3.12.W: Collaborate via electronic communication with peers, educators, and/or professionals to meet organizational goals.

CC. 15.4.12.A: Apply the creative and productive use of emerging technologies for educational and personal success.

CC.15.4.12.B: Evaluate the impact of social, legal, ethical, and safe behaviors on digital citizenship.

CC. 15.4.12.C: Develop criteria for analyzing hardware options to meet defined needs.

CC. 15.4.12.D: Evaluate emerging input technologies.

CC. 15.4.12.G: Create an advanced digital project using sophisticated design and appropriate software/applications.

CC. 15.4.12.K: Evaluate advanced multimedia work products and make recommendations based on the evaluation.

PA Career Education & Work

13.11.A: Relate careers to individual interest, abilities, and aptitudes.

13.11.B: Analyze career options based on personal interests, abilities, aptitudes, achievements, and goals.

13.4.11.B: Analyze entrepreneurship as it relates to personal character traits.

ISTE Standards 1-5

ISTE – 1 Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

- a. Apply existing knowledge to generate new ideas, products, or processes
- b. Create original works as a means of personal or group expression
- c. Use models and simulations to explore complex systems and issues
- d. Identify trends and forecast possibilities

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ISTE – 2 Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

- a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
- b. Communicate information and ideas effectively to multiple audiences using a variety of media and format
- c. Develop cultural understanding and global awareness by engaging with learners of other cultures
- d. Contribute to project teams to produce original works or solve problems

ISTE – 3 Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information.

- a. Plan strategies to guide inquiry
- b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media
- c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- d. Process data and report results

ISTE – 4 Critical Thinking, Problem Solving, and Decision making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and research.

- a. Identify and define authentic problems and significant questions for investigations
- b. Plan and manage activities to develop a solution or complete a project
- c. Collect and analyze data to identify solutions and/or make informed decisions
- d. Use multiple processes and diverse perspectives to explore alternative solutions.

ISTE – 5 Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

- a. Advocate and practice safe, legal, and responsible use of information and technology
- b. Exhibit a positive attitude toward using technology that supports collaboration, learning and productivity.
- c. Demonstrate personal responsibility for lifelong learning.
- d. Exhibit learning for digital citizenship

Anchors:

R11.B.3= Understand concepts and organization of nonfictional text

R11.A.2= Understand nonfiction appropriate to grade level

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Checklist to Complete and Submit with Curriculum:

- _____ A hard copy of the curriculum using The template entitled “Planned Instruction,” available on the district website
- _____ Hard copies of all supplemental resources not available electronically
- _____ The primary textbook form(s)
- _____ The appropriate payment form, in compliance with the maximum curriculum writing hours noted on the first page of this document
- _____ A USB/Flash Drive containing a single file that will print the curriculum in its intended sequence from beginning to end and all supplemental resources that are available in electronic format.

Each principal and/or department chair has a schedule of First and Second Readers/Reviewers. Each Reader/Reviewer must sign & date below.

First Reader/Reviewer Printed Name _____

First Reader/Reviewer Signature _____

Date _____

Second Reader/Reviewer Printed Name _____

Second Reader/Reviewer Signature _____

Date _____