

PUBLIC SCHOOLS OF EDISON TOWNSHIP
OFFICE OF CURRICULUM AND INSTRUCTION



Computer Concepts and Business Applications

Length of Course:	Term
Elective/Required:	Required
Schools:	High School
Eligibility:	Grade 9 -12
Credit Value:	5 Credits
Date Approved:	August 23, 2022

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Modifications will be made to accommodate IEP mandates for classified students

Statement of Purpose

An introductory course to the basic knowledge of computers and how to navigate the technological world in which we live. This course will help students understand computer terminology, computer hardware, computer software, mobile computing devices and the components of a network. We will also discuss the importance of computer security and the security of personal digital identity.

In addition, this course will give students the necessary skills to be successful in post-secondary education and within the work environment. We will utilize the Microsoft Office suite to learn to be proficient in Word Processing, Spreadsheet and Presentation software. The skills they will develop will enhance their efficiency and productivity in a rapidly-changing technological world.

This guide was revised by: Christa Cleary

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A copy of this curriculum guide for review on the District website and in the Office of Curriculum and Instruction.

Units Of Study

Units	Focus
Word 2019 - 1	<ul style="list-style-type: none">• Creating and Editing Documents• Formatting and Customizing Documents• Collaborating with Others and Working with Reports• Using Tables, Columns and Graphics
Excel 2019 - 2	<ul style="list-style-type: none">• Creating and Editing Workbooks• Working with Formulas and Functions• Creating and Editing Charts• Formatting, Organizing, and Getting Date
Powerpoint 2019 - 3	<ul style="list-style-type: none">• Creating and Editing Presentations• Illustrating with Pictures and Information Graphics• Preparing for Delivery and Using a Slide Presentation
Computer Concept Topics - 4	<ul style="list-style-type: none">• Computer Security• Social Media and Your Digital Identity• Computer in Business• Emerging technologies• Computer Software and Buying a computer• File Management• Networking and Connecting to the internet• Mobil Devices• Internet Research• Databases• Global Computing

Unit 1: - Microsoft Word

Targeted Standards	9.3.12.AR.VIS.2, 9.3.12.BM.3, 9.3.12.BM.4, 9.3.12.BM.5, 9.3.12.BM.MGT.7, • 8.1.12.CS.2, NJSLSA.R1, NJSLSA.R2, NJSLSA.R4, NJSLSA.R5
Unit Objectives/ Conceptual Understandings	<i>Students will understand that:</i> <i>Utilize Microsoft Word to produce postsecondary and professional documents</i>
Essential Questions	<i>Why is the proper formatting of college and professional documents important?</i> <i>Why is it important to proofread your documents?</i> <i>Why would only utilizing punctuation, grammar check and spell check not be enough to proofread your document?</i> <i>In what format and how will you distribute your word document?</i> <i>What is the proper etiquette to format an email?</i> <i>How can collaborating with peers help to create an effective assignment or report?</i>
Unit Assessment	<i>What is the evidence that students have achieved the targeted standards/unit objectives?:</i> <i>Student will be able to develop an end of year research paper to include, images, charts and proper MLA Formatting</i>

Core Content Objectives		Instructional Action	
Concepts What students will know	Skills What students will be able to do	Activities/Strategies Technology Implementation Interdisciplinary Connections	Assessment Check Points
<ul style="list-style-type: none"> The proper formatting of school and business documents are important for an effective presentation of information. Word has many features to enhance college and workplace documents Word has the ability to insert charts to display collected information for analysis. 	<ul style="list-style-type: none"> Utilize the Quick access Toolbar and ribbon Manage files and folders Apply text, character and paragraph formatting. 	Create: <ul style="list-style-type: none"> Formatting and Editing a word document with a picture. Research papers with references and sources Resumes Business Letter with 	<ul style="list-style-type: none"> Teacher observation Check for understanding Peer review and editing Classwork Group work Quizzes Tests Class Participation Collaboration with peers

<ul style="list-style-type: none"> • Collaboration is important and necessary when researching and presenting information. 	<ul style="list-style-type: none"> • Create business correspondence with proper formatting • Collaborate on documents utilizing comments and track changes • Insert and format borders, graphics and pictures to enhance a document • Create and format a research paper with references and sources 	<p>letterhead</p> <ul style="list-style-type: none"> • Documents with tables and charts • Newsletters with borders • Outlines 	
<p>Resources Microsoft access in Practice 365 2019 Edition - McGraw Hill Internet activities, Supplementary Materials: Current Events, online video tutorials,</p>		<p>Instructional Adjustments Modifications, student difficulties, possible misunderstandings Give short assignments Give short directions Break large assignments into small segments. Encourage completion of modified assignments. Allow for additional time.</p>	

Unit 2: Microsoft Excel

Targeted Standards	9.3.IT.6, 9.3.IT.PR.10, 9.3.12.BM.ADM.2, 9.12.BM.5 9.3.ST.2, 9.3.IT.SUP.7, CRP 1-12
Unit Objectives/ Conceptual Understandings	<i>Students will understand that:</i> Students will learn to use Microsoft Excel, the spreadsheet application within the Office suite, to analyze, chart, and manage data for personal, business, and financial use.
Essential Questions	Why is Microsoft Excel such a powerful tool to utilize in college and the workplace? What are the major uses of a spreadsheet application? Why is Microsoft Excel a great tool to analyze financial data?
Unit Assessment	<i>What is the evidence that students have achieved the targeted standards/unit objectives?: Students will be able to complete a spreadsheet in a workbook, to include the formatting of calculations, number types, charts, and sorting and filtering information to analyze.</i>

Core Content Objectives		Instructional Action	
Concepts What students will know	Skills What students will be able to do	Activities/Strategies Technology Implementation Interdisciplinary Connections	Assessment Check Points
<p>Excel is a spreadsheet application to organize numerical data.</p> <p>Formulas and functions can be used to calculate and sort data.</p> <p>Create tables and charts to analyze data</p> <p>Formatting features will allow for impressive display of data.</p>	<ul style="list-style-type: none"> Utilize the Quick access Toolbar and ribbon Manage files and folders Create a worksheet Format the worksheet, font size, type and color and apply styles Enter formulas and use autofill feature. Create various charts 	<ul style="list-style-type: none"> Formatting Spreadsheets Perform calculations on data Insert Formulas & Functions Create Charts/Graphs Create Pivot Tables, Pivot Charts Manage and Analyze Worksheet data Reorder and summarize data 	<ul style="list-style-type: none"> Teacher observation Check for understanding Peer review and editing Classwork Group work Quizzes Tests Class Participation Collaboration with peers

	<p>to display and analyze information</p> <ul style="list-style-type: none">• Use functions to find information in a range.• Format spreadsheet to print proper orientation and selected data		
Resources Microsoft access in Practice 365 2019 Edition - McGraw Hill Internet activities, Supplementary Materials: Current Events, online video tutorials,		Instructional Adjustments Modifications, student difficulties, possible misunderstandings Give short assignments Give short directions Break large assignments into small segments. Encourage completion of modified assignments. Allow for additional time	

Unit 3: TITLE OF UNIT-Powerpoint

Targeted Standards	9.3. IT.6 9.12. BM.1 9.12. BM.5 9.3. ST.2 CRP 1-12 9.3.IT.1 9.3.12.AR.VIS.2
Unit Objectives/ Conceptual Understandings	<i>Students will understand that:</i> Powerpoint is a powerful presentation tool that can create dynamic and professional slideshows to enhance oral presentations. Powerpoint allows for the speaker's message to be enhanced and enforced through digital displays of text, images, clip art, charts, tables, shapes, sound, animation and video.
Essential Questions	Why is powerpoint a useful tool to create dynamic and professional slideshows? Why is powerpoint one of the most frequently used software presentations in college and the workplace?
Unit Assessment	<i>What is the evidence that students have achieved the targeted standards/unit objectives?:</i> Students will be able to create an animated storybook utilizing images, clip art, shapes, text, animation and transitions.

Core Content Objectives		Instructional Action	
Concepts What students will know	Skills What students will be able to do	Activities/Strategies Technology Implementation Interdisciplinary Connections	Assessment Check Points
<p>Powerpoint is an effective software application to assist in the presentation of information in schools and the workplace.</p> <p>Utilize animations and transitions to move through the slide deck to enhance the presenters information.</p> <p>Powerpoint allows the presenter to insert, clip art, images, shapes, graphs, charts, video,</p>	<ul style="list-style-type: none"> Utilize the Quick access Toolbar and ribbon Manage files and folders Create a presentation Insert slides and change 	<ul style="list-style-type: none"> Create a presentation formatting slide layouts, themes and backgrounds to enhance the viewers interpretation of information. Insert graphics and 	<ul style="list-style-type: none"> Teacher observation Check for understanding Peer review and editing Classwork Group work Quizzes Tests Class Participation Collaboration with peers

<p>sounds, and music to effectively deliver information.</p>	<p>slide layouts</p> <ul style="list-style-type: none"> • Add and remove slides • Apply themes • Change the font, size and color of text • Insert and format pictures, shapes and word art. • Format slide backgrounds utilizing colors and or pictures. • Insert and edit video clips • Insert and control audio clips • Control and edit animation and transitions. 	<p>shapes, resize, edit and format to creatively present information.</p> <ul style="list-style-type: none"> • Create a presentation with customized and animated, text and pictures. • Insert audio and video to emphasize key points and control the focus • Create an animated storybook utilizing, shapes, pictures, clipart, animation, transitions, music , video and audio. 	
<p>Resources Microsoft access in Practice 365 2019 Edition - McGraw Hill Internet activities, Supplementary Materials: Current Events, online video tutorials,</p>		<p>Instructional Adjustments Modifications, student difficulties, possible misunderstandings Give short assignments Give short directions Break large assignments into small segments. Encourage completion of modified assignments. Allow for additional time</p>	

Unit 4: Computer Concepts

Targeted Standards	9.3.21.BM.MGT.1 9.3.12.BM.MGT.2 9.3.IT.2 9.3.IT.4 9.3.IT.7 9.3.IT.12 9.3.IT.13
Unit Objectives/ Conceptual Understandings	<i>Students will understand that:</i> Computers play an important role in our society and they are an indispensable resource for school and business.
Essential Questions	How can students be proactive to combat cyberbullying? How can students deter, detect and defend identity theft? Why should we investigate emerging technologies? What should we do prior to purchasing a computer and or software? Why is it important to organize data in a computer? How do computers communicate and why is this important?
Unit Assessment	<i>What is the evidence that students have achieved the targeted standards/unit objectives?:</i> Research project - PSA

Core Content Objectives		Instructional Action	
Concepts What students will know	Skills What students will be able to do	Activities/Strategies Technology Implementation Interdisciplinary Connections	Assessment Check Points
Identify computer equipment and terminology How to determine the type of computer to purchase based on its intended use. Identify components of a network and possible security issues.	<ul style="list-style-type: none"> Define computer terms Identify computer parts Review the specs of a 	<ul style="list-style-type: none"> Create a computer diagram with important parts/specs labeled. Create a social media poster-"mobile me" and identify apps 	<ul style="list-style-type: none"> Teacher observation Check for understanding Peer review and editing Classwork Group work Quizzes Tests Class Participation

<p>How to protect themselves against identity theft.</p> <p>Identify cyberbullying when they see it.</p> <p>How to maintain folders and files within their personal computer.</p>	<p>computer to determine if the computer fits the intended use of the user.</p> <ul style="list-style-type: none"> • Describe a network and the importance of security within a network. • How to deter, detect and defend themselves against identity theft. • Understand what might be posted online could be embarrassing and hurtful to someone • Organize data on their computer with the proper use of folders and file names • Research topics and collect data information that is legitimate and authentic. 	<p>that are useful to the student.</p> <ul style="list-style-type: none"> • Utilize the internet to research and collect data about a person of interest famous in the technology world. • Utilize software to demonstrate how networks work. • Create a PSA related to cyberbullying or Identity theft 	<ul style="list-style-type: none"> • Collaboration with peers
<p>Resources</p> <p>**Researching possible supplemental book. Awaiting receipt.</p> <p>Utilize global and local news about changes and additions in the technology world.</p>	<p>Instructional Adjustments</p> <p>Modifications, student difficulties, possible misunderstandings</p> <p>Give short assignments</p> <p>Give short directions</p> <p>Break large assignments into small segments.</p> <p>Encourage completion of modified assignments.</p> <p>Allow for additional time</p>		