School District of Jefferson Course Guide

Computer Applications

Course Title: Computer Applications (Exploratory Class - 9 weeks) 7th Grade

Course Description: Students will learn basic computer terminology and application software.

Unit of Study (Theme) →	**Computer Terminology**	**Word Processing**	**Spreadsheets**	**Presentation**
Unit Goal → Transfer goal-What long term independent accomplishments are desired?	*Students will be able to independently use their learning to* correctly identify major computer parts by name and usual general technology terms correctly.	*Students will be able to independently use their learning to appreciate how* using Word Processing software makes certain takes easier and more efficient.	*Students will be able to independently use their learning to appreciate how* using spreadsheet software makes certain tasks easier/more efficient.	*Students will be able to independently use their learning to* appreciate how using presentation software can make and organize information more dynamic for viewing by an audience
Enduring Understandings → Thematic deeper understanding -What specifically do you want students to understand? What inferences should they make?	*Students will understand*: ● The difference/identify input and output components ● Basic Computer Terms ● The 5 main types of application software	*Students will understand that* Word Processing Software: ● Has advanced uses/features (not just used for typing) ● Can be used to complete a wide variety of tasks (not just straight typing)	*Students will understand that* Spreadsheet Software: ● Can help simplify some complicated tasks ● Can be used to create templates for repeated use	*Students will understand that* Presentation Software: ● Can make a presentation more interesting ● Can be used to simplify information for easier understanding by an audience
Essential Questions → What thought provoking questions will foster inquiry, meaning making, and transfer? 2-3 per unit. Debatable, ponder, change your answer, no one correct answer	➢ What are the parts of a computer set up? ➢ What application software should be used for various projects? ➢ What is the difference in input and output devices?	➢ What can Word Processing software be used for (other than just typing material)? ➢ How can Word Processing software features be used to make professional/formal looking output (ie editing features)?	➢ How is the spreadsheet better than using a calculator or doing the math in my head? ➢ How can I use a spreadsheetor graph to graphically display the information?	➢ Why does it matter how I display the information (isn't the info. the important part)? ➢ How can I use technology to make a presentation more interesting?
Associated Standards: → **Domain:** IT = Information Technology DG = BCA =	**IT2.a: Identify hardware components inside and outside of a digital device and distinguish which hardware devices would benefit certain tasks.** **IT1.e.3.m:** Compare and contrast acceptable and	**IT1.b: Select and use appropriate features of a word processor to organize and effectively communicate information.** **IT1.b.3.e:** Use existing graphics to enhance the appearance of documents.	**IT1.c: Select and use appropriate features of a spreadsheet program to organize and effectively communicate information.** **IT1.c.1.e:** Input data into a spreadsheet. **IT1.c.2.e**: Illustrate data through graphs and charts.	**IT1.d: Select and use appropriate features of presentation tools to communicate effectively.** **IT1.d.2.m**: Enhance a presentation visually using graphics, sounds, diagrams, animation and transitions.

	unacceptable uses of emerging technology. **IT1.e.4.m:** Apply an emerging technology tool appropriately to a given situation. **IT1.f.6.m:** Identify and research sources of information about hardware, software and other tools. **IT2.a.1.e:** Identify commonly used peripheral devices, such as monitor, keyboard, mouse, mobile devices, scanners and cameras. **IT2.a.2.e:** Identify commonly used output devices, such as speakers, printer and projector. **IT2.a.3.e:** List and define hardware components. **IT2a.5.m:** Compare and contrast types of storage devices. **IT2a.6.m:** Identify internal components of an electronic device.	**IT1.b.7.m:** Customize documents using formatting such as alignment, spacing, themes, borders and ordered and unordered lists. **IT1.b. 8.m:** Create and manipulate graphics to enhance the appearance of documents. **IT1.e.4.m:** Apply an emerging technology tool appropriately to a given situation. **IT1.f.3.m:** Use help features and reference materials to learn software and tools to solve problems. **IT2a.4.m:** Demonstrate the use of a variety of printer functions. **DGC1.a.1.e:** Create a document or publication with text, page border and clipart. **DGC1.a.2.e:** Insert clipart and other graphics to enhance documents or publications. **DGC1.a.3.m:** Create a document or publication incorporating text, columns, graphics, borders and shading.	**IT1.c.3.m:** Enhance a spreadsheet visually using fonts, colors and graphics. **IT1.c.4.m:** Generate formulas to perform calculations. **IT1.c.5.m:** Analyze numerical and graphic data in a spreadsheet. **IT1.e.4.m:** Apply an emerging technology tool appropriately to a given situation. **IT1.f.3.m:** Use help features and reference materials to learn software and tools to solve problems. **IT2a.4.m:** Demonstrate the use of a variety of printer functions. **BCA1.c.1.e:** Determine the correct mathematical processes to use for various problem situations and use formulas when appropriate. **BCA1.c.2.e:** Select and use appropriate tools when solving problems. **BCA1.c.7.m:** Convert decimals, fractions, percents, etc. with the use of technology. **BCA3.a.1.e:** Use a spreadsheet program to calculate simple data. **BCA3.a.3.m:** Calculate data using formulas and functions. **BCA3.a.4.m:** Calculate common mathematical functions (mean, median, mode, average, sum, etc.). **BCA3.b.2.e:** Recognize current and emerging technologies to construct and display data graphically. **BCA3.b.3.m:** Prepare and produce charts and graphs. **BCA3.b.4.m:** Apply current and emerging technologies to construct and display data graphically/digitally.	**IT1.d.3.m:** Create linear and non-linear presentations using hyperlinks. **IT1.d.4.m:** Customize a presentation for a given situation by modifying design templates with color schemes and custom backgrounds. **IT1.e.4.m:** Apply an emerging technology tool appropriately to a given situation. **IT1.f.3.m:** Use help features and reference materials to learn software and tools to solve problems. **IT2a.4.m:** Demonstrate the use of a variety of printer functions.

Learning Targets → I can statements. Student friendly descriptions of what you intend students to learn or accomplish in unit lessons	✓ I can identify, by name, basic computer hardware. ✓ I can identify parts of the operating system software. ✓ I can identify basic components as an input or output device. ✓ I can name the five main types of application software and what it is used for.	✓ I can edit a word processing document. ✓ I can apply basic font formatting features using Word Processing. ✓ I can sort Alphabetically using Word Processing. ✓ I can apply Automatic numbering in Word Processing. ✓ I can create columns using Word Processing. ✓ I can apply leader tabs using Word Processing. ✓ I can apply desktop publishing skills (clipart, wordart, formatting) using Word Processing.	✓ I can enter and edit data in a spreadsheet ✓ I can create formulas that can add, subtract, multiply, divide, find the mean, the highest/lowest values. ✓ I can create charts and graphs that graphically display data ✓ I can use borders and gridlines to creat fill-in forms	✓ I can create a presentation using a computer ✓ I can use features to make my presentations easier to understand ✓ I can use features to make my presentations more interesting
Knowledge and Skills → *Knowledge* -What facts/basic concepts should students know and be able to recall? *Skills* - What discrete skills and processes should students be able to use?	**Knowledge:** ■ Computer Terminology ■ Input/Output Devices ■ Application Software **Skills:** ■ Identify computer hardware ■ Identify parts of the Operating system ■ Describe uses for the 5 main types of application software	**Knowledge:** ■ Editing features ■ Basic formatting ■ Word Processing Software has advanced features that can make a document more professional/finished looking **Skills:** ■ Keyboard/input/edit information in WP ■ Spell check in WP ■ Columns in WP ■ Tabs in WP ■ Sorting in WP ■ Numbering/Bullets in WP	**Knowledge:** ■ Multiplication is used to find total pay (hours x rate) ■ Addition is used to find that total/sum ■ Mean/Average is found by dividing a sum of a group numbers by the amount of numbers in the group ■ Interpret Charts/Graphs ■ Spreadsheet Software can perform math problems and create graphs and can store them for later use **Skills:** ■ Ability to reason ■ Enter/edit data in SS ■ Create charts/graphs in SS ■ Develop formulas (math problems) in SS ■ Generate forms in SS	**Knowledge:** ■ Presentation Software has advanced features that can make a presentation more professional/finished looking **Skills:** ■ Animation in presentations ■ Transitions in presentations ■ Appropriate formatting for a presentation (colors, fonts, size of text, visually pleasing)
Academic Vocabulary/Language consists of *academic vocabulary terms critical to understanding content that are* used in *academic discourse. What vocab and grammar will be provided*	Input/Output Hardware/Software Application/Operating Software Ribbon Launcher	Indent Font Column Tabs Editing features	Formula Column vs. Row Intersecting (cell) Average (Mean) Sum Axis (vertical/horizontal)	Slideshow Transition Animation Gif files

so students can competently discuss the topic using complete sentences? Structured dialogue in the form of "sentence stems" provides a scaffold.	Environment Motherboard (memory, network card, storage) CPU		Label vs. Value	
Performance Tasks → Through what **authentic** performance task will students demonstrate the desired understandings?	The quarter long project involves students creating different elements by applying the features they are learning in class. The students will demonstrate an understanding of this unit as they determine what type of application software is best to use for each of the components they create for the project.	The Word Processing component of the quarter long project involves students creating documents, using Word, based on applying the features they are learning in class. The topic/desired use of these documents are developed by the students, individually, based on how they may use Word Processing for themselves, in their own life, in the future.	The Spreadsheet component of the quarter long project involves students creating spreadsheet workbooks, using Excel, based on applying the features they are learning in class. The topic/desired use of these documents are developed by the students individually, based on how they may use spreadsheets for themselves, in their own life, in the future.	The Presentation component of the quarter long project involves students creating presentations, using PowerPoint, based on applying the features they are learning in class. The topic/desired use of these presentations are developed by the students individually, based on how they may use spreadsheets for themselves, in their own life, in the future.
Common Assessments → (Evaluative Criteria) What criteria will be used to evaluate attainment of desired results?	A quarter long project is used to give the students the opportunity to apply their knowledge of application software by using different software to complete tasks that they create for their own use. Project handout.pdf The project is scored using a rubric (the amount of work time the individual student had to work on the project is considered). Project Rubric.pdf	A quarter long project is used to give the students the opportunity to show what skills and features they have learned using Word Processing software and how they would apply them in documents that are useful to them. They use their own ideas of practical uses for the skill/features learned. Project handout.pdf The project is scored using a rubric (the amount of work time the individual student had to work on the project is also considered). Project Rubric.pdf	A quarter long project is used to give the students the opportunity to show what skills and features they have learned using Spreadsheet software and how they would apply them in spreadsheets/forms that are useful to them. They use their own ideas of practical uses for the skill/features learned. Project handout.pdf The project is scored using a rubric (the amount of work time the individual student had to work on the project is also considered). Project Rubric.pdf	A quarter long project is used to give the students the opportunity to show what skills and features they have learned using Presentation software and how they would apply them in presentations that are useful to them. They use their own ideas of practical uses for the skill/features learned. Project handout.pdf The project is scored using a rubric (the amount of work time the individual student had to work on the project is also considered). Project Rubric.pdf
Other Evidence:→ Includes pre-Assessment, formative, and summative assessment evidence-individual or group based	Assignments applying the features: ✤ Computer Terms <video & worksheet> (including	Assignments applying the features: ✤ Word 1 (editing/formatting)	Assignments applying the features: ✤ Excel 1 & 2 (data entry/editing/ formatting)	Assignments applying the features: ✤ Powerpoint 1 & 2 (data entry/editing/formatting, visually pleasing)

	input/output and hardware/software and various computer components) ✤ Application Software <video & worksheet> (define each type and identify what it is used for)	✤ Word 2 (numbering/sorting/spacing) ✤ Word 3 & 4 (columns/bullets) ✤ Word 5 (leader tabs) ✤ Word 6 & 7 (clipart/word art)	✤ Excel 3 (* and + formulas) ✤ Excel 4 (- formulas) ✤ Excel 5 (Auto formulas Mean/Max/Min) ✤ Excel 6 (Copy/Step Value) ✤ Excel 7 & 8 (Bar graph/Pie Chart) ✤ Excel 9 & 10 (Gridlines/borders/ formatting)	✤ Powerpoint 3 (animation & transitions) ✤ Powerpoint 4 (advanced features ie. tables, graphs, smart art)
Intervention & Enrichment → (Differentiation for Learning) How can this lesson be differentiated for different learning styles or rates of learning?	The quarter project allows for differentiation. Students with advanced skills are encouraged to add examples/ideas to the project and are given instructions for more advanced features they could include based on their own ideas of how to use application Software. Students struggling with the content of the material in the assignments are given more time to complete assignments and more individualized assistance. Therefore; they have less project work time and the expectation of the quantity included in their project is less. These students are able to apply whatever features they were able to develop in their project with their own ideas on how to use them.	The quarter project allows for differentiation. Students with advanced skills are encouraged to add examples/ideas to the Word Processing portion of the project and are given instructions for more advanced features they could include based on their own ideas of how to use Word Processing Software. Students struggling with the content of the material in the assignments are given more time to complete assignments and more individualized assistance. Therefore; they have less project work time and the expectation of the quantity included in their project is less. These students are able to apply whatever features they were able to develop in their project with their own ideas on how to use them.	The quarter project allows for differentiation. Students with advanced skills are encouraged to add more examples/ideas to the Spreadsheet portion of the project and are given instructions for more advanced features they could include based on their own ideas of how to use Spreadsheet Software. Students struggling with the content of the material in the assignments are given more time to complete assignments and more individualized assistance. Therefore; they have less project work time and the expectation of the quantity included in their project is less. These students are able to apply whatever features they were able to develop in their project with their own ideas on how to use them.	The quarter project allows for differentiation. Students with advanced skills are encouraged to add more examples/ideas to the Presentation portion of the project and are given instructions for more advanced features they could include based on their own ideas of how to use Presentation Software. Students struggling with the content of the material in the assignments are given more time to complete assignments and more individualized assistance. Therefore; they have less project work time and the expectation of the quantity included in their project is less. These students are able to apply whatever features they were able to develop in their project with their own ideas on how to use them.
Primary Resources: →	Cortez Peters Text Keyboarding Textbook	"Keyboarding Errors" Presentation "Spacing Rules" Presentation	"Formatting a Letter" Presentation Keyboarding Textbook	
Supplementary Resources: →	Typing.com Website Posture Check Off Sheet	Errors Worksheets (1, 2, 3) Spacing Rules Worksheet Error Quiz Typing.com Website	Parts of A Letter Handout Formatting A Letter Handout	
Pacing: →	Two Weeks	Three Weeks	Three Weeks	One Week