BUSINESS & COMPUTER SCIENCE/BUSINESS MANAGEMENT
Word Processing
Unit 5: Spreadsheet Applications

Essential Understandings	- Electronic spreadsheet software is used to produce professional reports, perform simple business or personal calculations, perform financial or scientific calculations or assist with database management. - Charts can be produced from spreadsheet software.
Essential Questions	- What is a spreadsheet? - What are the basic parts of a spreadsheet? - What is a workbook - What is a formula? - What are the mathematical operators used in Excel. - How does Excel perform calculations? - How do you create a chart?
Essential Knowledge	- A spreadsheet is a software program that enables one to perform various calculations. - The parts of a spreadsheet view include: title bar, menu bar, standard toolbar, formatting toolbar, name box, formula bar, column headings, row headings, active cell, status box, scroll bars, sheet tabs, horizontal scroll bar, cell and vertical scroll bar, cell reference, and scroll. - A workbook is an excel file with one or more worksheets. - A formula is an instruction Excel uses to calculate a number. For example: =sum(b4:j4) - Mathematical operators are symbols used in mathematical operations: + for addition, - for subtraction, * for multiplication, / for division, and ^ for exponentiation. - The order of mathematical operations is the order in which Excel performs the calculations specified in a formula. - A chart presents Excel data in graphic format, allowing one to compare and contrast data. - To create a chart: - select data - click insert tab - click arrow button for the chart type - select chart subtype.

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Vocabulary	▪ <u>Terms</u>: ○ value, numeric label, label prefix, series, standard column width, formula, mathematical operators, order of mathematical operations, range, contiguous range, noncontiguous range, format, theme, font, fill, cell styles, font size, number format, accounting format, percent format, comma format, currency format, copy, paste, clipboard, fill handle, format painter, relative cell reference, absolute cell reference, print, grouping, active sheet tab, functions, function name, argument, nest, formula auto complete, auto calculate, excel table, structured references, comment, criteria, chart, embedded chart, chart sheet, plot, data series, legend, x-axis, y-axis, categories
Essential Skills	▪ Demonstrate keyboarding speed and accuracy on straight copy. ▪ Demonstrate knowledge of the basic parts of a spreadsheet. ▪ Create and manipulate the data of a spreadsheet. ▪ Use spreadsheets. ▪ Apply formulas in spreadsheets. ▪ Create a chart.

Related Maine Learning Results	<u>Mathematics</u>
	B. Data
	   Measurement and Approximation
	   B1.Students understand the relationship between precision and accuracy.
	     a. Express answers to a reasonable degree of precision in the context of a given problem.
	     b. Represent an approximate measurement using appropriate numbers of significant figures.
	     c. Know that most measurements are approximations and recognize the advantage of using the mean of repeated measurements.
	D. Algebra
	   Symbols and Expressions
	   D1.Students understand and use polynomials and expressions with rational exponents.
	     a. Simplify expressions including those with rational exponents.
	     b. Add, subtract, and multiply polynomials.
	     c. Factor the common term out of polynomial expressions.
	     d. Divide polynomials by $(ax + b)$.

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Related Maine Learning Results	Career and Education Development
	B. Learning About and Exploring Education, Career, and Life Roles
	   B. Learning About and Exploring Education, Career, and Life Roles
	   B2.Skills for Individual/Personal Success in the 21st Century
	      Students evaluate strategies to improve skills that lead to lifelong learning and success in the classroom, and the achievement of schoolwork, work and career, and personal life goals.
	      a. Literacy skills
	      b. Numeracy
	      c. Critical thinking skills
	      d. Information and communication technology (ICT) literacy
	      e. Interpersonal skills
	      f. Other academic skills and knowledge
	   B3.Education and Career Information
	      Students use previously acquired knowledge and skills to evaluate and utilize a variety of resources to articulate a plan and make decisions for post-secondary education, training, and career choices.
	C. Learning to Make Decisions, Plan and Create Opportunities, and Make Meaningful Contributions
	   C1.The Planning Process
	      Students use the planning process to make school-to-school and school-to-work decisions.
	      a. Self-knowledge
	      b. Looking for and creating personal career options
	      c. Decision-making skills
	   C2.Decision-Making
	      Students determine and apply effective decision-making strategies for accomplishing short-term and long-term goals related to school-to-school and school-to-work decisions.
	   C3.Influences on Decision-Making
	      Students examine sources of information that influence their career and education decision- making.
	   C4.Societal Needs and Changes that Influence Workplace Success
	      Students analyze and evaluate strategies for addressing diverse and changing societal and global economic needs that influence personal decision- making for workplace success.

Sample Lessons And Activities	▪ Create a new workbook from data given. ▪ Create a pie chart from above assignment.

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Sample Classroom Assessment Methods	▪ Observation ▪ Class work ▪ Homework ▪ Tests ▪ Quizzes

Sample Resources	▪ Publications:
	   o Keyboarding and Information Processing – South-Western Educational Publishing
	▪ Other Resources:
	   o Teacher made materials