

Essentials of Microsoft Office

Course Description

Essentials of Microsoft Office is a hands on course designed to develop student knowledge of the Microsoft Office Suite application. The emphasis is on real world applications designed to facilitate student created professional quality documents, spreadsheets, and presentations. In this course students will learn and master the most commonly used features of Microsoft Word, Excel, PowerPoint, and Access. Upon completion of this course, students will have developed the technical skills and software knowledge necessary for entry into the 21st century workforce as well as the background required for college course applications.

Essentials of Microsoft Office

Pacing Guide		
Unit	Topic	Suggested Timing
Unit 1	Microsoft Word	approx. 5 weeks
Unit 2	Microsoft Excel	approx. 10 weeks
Unit 3	Microsoft Access	approx. 10 weeks
Unit 4	Microsoft PowerPoint	approx. 10 weeks

Educational Technology Standards

8.1.12.A.1, 8.1.12.B.2, 8.1.12.C.1, 8.1.12.D.1, 8.1.12.E.1, 8.1.12.F.1

- **Technology Operations and Concepts**
 - Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
- **Creativity and Innovation**
 - Apply previous content knowledge by creating and piloting a digital learning game or tutorial.
- **Communication and Collaboration**
 - Develop an innovative solution to a real world problem or issue in collaboration with peers and experts, and present ideas for feedback through social media or in an online community.
- **Digital Citizenship**
 - Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
- **Research and Information Literacy**
 - Produce a position statement about a real world problem by developing a systematic plan of investigation with peers and experts synthesizing information from multiple sources.
- **Critical Thinking, Problem Solving, Decision Making**
 - Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

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

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 well-being, 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.

Differentiated Instruction

Strategies to Accommodate Students Based on Individual Needs

<u>Time/General</u>	<u>Processing</u>	<u>Comprehension</u>	<u>Recall</u>
<ul style="list-style-type: none"> • Extra time for assigned tasks • Adjust length of assignment • Timeline with due dates for reports and projects • Communication system between home and school • Provide lecture notes/outline 	<ul style="list-style-type: none"> • Extra Response time • Have students verbalize steps • Repeat, clarify or reword directions • Mini-breaks between tasks • Provide a warning for transitions • Reading partners 	<ul style="list-style-type: none"> • Precise step-by-step directions • Short manageable tasks • Brief and concrete directions • Provide immediate feedback • Small group instruction • Emphasize multi-sensory learning 	<ul style="list-style-type: none"> • Teacher-made checklist • Use visual graphic organizers • Reference resources to promote independence • Visual and verbal reminders • Graphic organizers
<u>Assistive Technology</u>	<u>Tests/Quizzes/Grading</u>	<u>Behavior/Attention</u>	<u>Organization</u>
<ul style="list-style-type: none"> • Computer/whiteboard • Tape recorder • Spell-checker • Audio-taped books 	<ul style="list-style-type: none"> • Extended time • Study guides • Shortened tests • Read directions aloud 	<ul style="list-style-type: none"> • Consistent daily structured routine • Simple and clear classroom rules • Frequent feedback 	<ul style="list-style-type: none"> • Individual daily planner • Display a written agenda • Note-taking assistance • Color code materials

Enrichment

Strategies Used to Accommodate Based on Students Individual Needs:

- Adaption of Material and Requirements
- Evaluate Vocabulary
- Elevated Text Complexity
- Additional Projects
- Independent Student Options
- Projects completed individual or with Partners
- Self Selection of Research
- Tiered/Multilevel Activities
- Learning Centers
- Individual Response Board
- Independent Book Studies
- Open-ended activities
- Community/Subject expert mentorships

Assessments

Suggested Formative/Summative Classroom Assessments

- Timelines, Maps, Charts, Graphic Organizers
- Teacher-created Unit Assessments, Chapter Assessments, Quizzes
- Teacher-created DBQs, Essays, Short Answer
- Accountable Talk, Debate, Oral Report, Role Playing, Think Pair, and Share
- Projects, Portfolio, Presentations, Prezi, Gallery Walks
- Homework
- Concept Mapping
- Primary and Secondary Source analysis
- Photo, Video, Political Cartoon, Radio, Song Analysis
- Create an Original Song, Film, or Poem
- Glogster to make Electronic Posters
- Tumblr to create a Blog

Interdisciplinary Connections

English Language Arts

- Journal writing
- Close reading of industry-related content
- Create a brochure for a specific industry
- Keep a running word wall of industry vocabulary

Social Studies

- Research the history of a given industry/profession
- Research prominent historical individuals in a given industry/profession
- Use historical references to solve problems

World Language

- Translate industry-content
- Create a translated index of industry vocabulary
- Generate a translated list of words and phrases related to workplace safety

Math

- Research industry salaries for a geographic area and juxtapose against local cost of living
- Go on a geometry scavenger hunt
- Track and track various data, such as industry's impact on the GDP, career opportunities or among of individuals currently occupying careers

Fine & Performing Arts

- Create a poster recruiting young people to focus their studies on a specific career or industry
- Design a flag or logo to represent a given career field

Science

- Research the environmental impact of a given career or industry
- Research latest developments in industry technology
- Investigate applicable-careers in STEM fields

New Jersey Student Learning Standards

8.1–Educational Technology

- 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.A.4: Construct a spreadsheet workbook with multiple worksheets, rename tabs to reflect the data on the worksheet, and use mathematical or logical functions, charts and data from all worksheets to convey the results.
- 8.1.12.D.5: Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
- 8.1.12.F.1: Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.

9.3– Career and Technical Education

Career Cluster: Business Management and Administration

- 9.3.12.BM.1: Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.

Pathway: Business Information Management

- 9.3.12.BM-BIM.2: Plan, monitor, manage and maintain the use of financial resources to ensure a business’s financial wellbeing.

Pathway: General Management

- 9.3.12.BM-MGT.4: Employ and manage techniques, strategies and systems to enhance business relationships.
- 9.3.12.BM-MGT.5: Plan, monitor, manage and maintain the use of financial resources to ensure a business’s financial wellbeing.

- 9.3.12.BM-MGT.7: Plan, organize and manage an organization/department to achieve business goals.

Common Career Technical Core (CCTC)

Career Cluster: Business Management and Administration

- BM.1: Utilize mathematical concepts, skills and problem solving to obtain necessary information for decision-making in business.

Pathway: Business Information Management

- BM-BIM.2: Plan, monitor, manage and maintain the use of financial resources to ensure a business's financial wellbeing.

Pathway: General Management

- BM-MGT.4: Employ and manage techniques, strategies and systems to enhance business relationships.
- BM-MGT.5: Plan, monitor, manage and maintain the use of financial resources to ensure a business's financial wellbeing.
- BM-MGT.7: Plan, organize and manage an organization/department to achieve business goals.

Common Core State Standards (CCSS)

CCSS - Mathematics

Summarize, represent, and interpret data on a single count or measurement variable:

- CCSS.MATH.CONTENT.HSS.ID.A.4 Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

Make inferences and justify conclusions from sample surveys, experiments, and observational studies:

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

Course: Essentials of Microsoft Office Unit: II Excel Grade Level: 9-12	Unit Overview: Students will examine the applications and uses Microsoft Excel in the business, personal, and financial setting.
New Jersey Student Learning Standards (NJSLS): 8.1.12.A.2, 8.1.12.A.4; 8.1.12.D.5; 8.1.12.F.1; 9.3.12.BM.1; 9.3.12.BM-MGT.5; 9.3.12.BM-MGT.7; 9.3.12.BM-BIM.2	
Common Career Technical Core (CCTC): BM.1; BM-BIM.2; BM-MGT.5; BM-MGT.7	
Common Core State Standards (CCSS): CCSS.MATH.CONTENT.HSS.ID.A.4; CCSS.MATH.CONTENT.HSS.IC.B.6	

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
Explain the how the skills in Excel are used to manage and manipulate information in the workplace. NJSLS: 8.1.12.A.2; 8.1.12.A.4; 8.1.12.D.5; 8.1.12.F.1; 9.3.12.BM-MGT.5; 9.3.12.BM-MGT.7; 9.3.12.BM-BIM.2; 9.3.12.BM.1 CCTC: BM-MGT.5; BM-	How are spreadsheets used to maintain schedules, tract expenses, and manage large-scale projects in careers? How are spreadsheets used to measure performance, plan a budget, and make other calculations?	<ul style="list-style-type: none"> • Identify how MS Excel is used to create schedules • Identify how Excel can track corporate finances • Manage projects • Identify how Excel is used to measure performance • Create a budget • Make calculations 	Independent practice: Student will create a MS Excel spreadsheet, focusing on 'autosum' tool. Managing Data: <ul style="list-style-type: none"> • Summarize data with Excel by incorporating formulas, formatting, and 	How do Businesses Use Excel? http://smallbusiness.chron.com/businesses-use-excel-1048.html The Importance of Excel in the Workplace http://ezinearticles.com/?The-Importance-Of-Excel-In-The-Workplace&id=724646

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
MGT.7; BM-BIM.2; BM.1 CCSS: CCSS.MATH.CONTENT. HSS.ID.A.4; CCSS.MATH.CONTENT. HSS.IC.B.6			charts and graphs <ul style="list-style-type: none"> • Optimize your worksheets using templates, graphs and formulas • Design simple to complex formulas by nesting Excel functions • Import, fine-tune and share Excel data • Create, manage and launch macros 	
Identify the fundamental Excel skills. NJSLS: 8.1.12.A.4; 8.1.12.D.5; 8.1.12.F.1; 9.3.12.BM-MGT.7; 9.3.12.BM.1 CCTC: BM-MGT.7; BM.1 CCSS: CCSS.MATH.CONTENT. HSS.IC.B.6	What is the role of Microsoft Excel in academics and the workplace? What are the basic applications of Microsoft Excel?	<ul style="list-style-type: none"> • Identify parts of the Excel screen. Open and close workbooks. • Insert and edit cell contents. • Name and save a workbook. • Calculate a sum. Print a worksheet 	Basic Skills Lessons: http://excelcentral.com/excel2013/essential/tutorials/session-01-excel-tutorial-beginner-basic-skills.html Advanced Skills Lesson: https://www.goskills.com/Course/Excel/Lessons	Excel Basics: http://chandoo.org/wp/excel-basics/ Excel Skills: http://www.washburn.edu/faculty/boncella/BU956/Excel%20Modeling/Ch3.pdf MS Excel Entering Information: http://spclc.org/sites/de

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
				fault/files/Excel_Exercise_1_BASIC_-_Entering_Information.pdf
<p>Explore the used of Excel to track budgets and inventory.</p> <p>NJSLS: 8.1.12.A.4; 8.1.12.F.1; 9.3.12.BM-MGT.5; 9.3.12.BM-MGT.7; 9.3.12.BM-BIM.2; 9.3.12.BM.1 CCTC: BM-MGT.5; BM-MGT.7; BM-BIM.2; BM.1 CCSS: CCSS.MATH.CONTENT.HSS.ID.A.4; CCSS.MATH.CONTENT.HSS.IC.B.6</p>	<p>What is the role of MS Excel in inventory tracking?</p> <p>What is the role of MS Excel in corporate budgeting?</p>	<ul style="list-style-type: none"> • Enter, edit, clear, find and replace cell contents. • Use AutoSum, Average, Min, and Max functions. • Use Cut, Copy, and Paste. • Use the Fill handle tool. • Insert, modify, and remove hyperlinks. 	<p>Budget: In groups of 2 create a budget based on your desired career.</p> <p>Smartsheet Solutions: https://www.smartsheet.com/solutions/inventory-management</p>	<p>MS Excel Budgets: http://spclc.org/sites/default/files/Excel_Exercise_3_BASIC_-_Budgets.pdf</p> <p>MS Budget Quiz: http://spclc.org/sites/default/files/Excel_Exercise_6_-_Budgets.pdf</p>
<p>Identify how data and content are formatted in Excel.</p> <p>NJSLS: 8.1.12.A.4; 9.3.12.BM-MGT.5;</p>	<p>How is data and content formatted in Excel?</p> <p>How are Excel's advanced tools and features to help manage</p>	<ul style="list-style-type: none"> • Change font, size, style, and color. Convert text to columns. • Apply cell and table styles. 	<p>Excel High School Lesson Plans: https://celia.wikispaces.com/file/view/excelproject_s08.pdf</p>	<p>MS Excel Entering Information http://spclc.org/sites/default/files/Excel_Exercise_1_-_Entering_Information.pdf</p>

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
<p>9.3.12.BM-MGT.7; 9.3.12.BM.1 CCTC: BM-MGT.5: BM-MGT.7; BM.1 CCSS: CCSS.MATH.CONTENT.HSS.ID.A.4; CCSS.MATH.CONTENT.HSS.IC.B.6</p>	<p>data?</p>	<ul style="list-style-type: none"> • Modify the size of rows and columns. • Hide and unhide rows, columns, and worksheets. • Change horizontal and vertical alignment. • Insert, move, and modify SmartArt graphics. • Create and Modify list ranges • Create advanced filters • Create subtotals and grand totals • Group and outline data • Apply data validation • Circle invalid data • Remove duplicate values • Name a cell range 	<p>Formatting Lesson Plans: https://www.sjsd.k12.mo.us/Page/19267</p>	<p>pdf</p> <p>MS Excel Charts http://spclc.org/sites/default/files/Excel_Exercise_5_-_Making_Charts.pdf</p> <p>Formatting Cells https://www.youtube.com/watch?v=L0cQ_IvL8LQ</p>

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
<p>Examine data analysis using Excel.</p> <p>NJSLS: 8.1.12.A.4; 8.1.12.D.5; 9.3.12.BM-MGT.5; 9.3.12.BM-MGT.7; 9.3.12.BM-BIM.2; 9.3.12.BM.1</p> <p>CCTC: BM-MGT.5; BM-MGT.7; BM-BIM.2; BM.1</p> <p>CCSS: CCSS.MATH.CONTENT.HSS.ID.A.4; CCSS.MATH.CONTENT.HSS.IC.B.6</p>	<p>How is data analyzed using Excel?</p> <p>What analytical tools in Excel allow you to summarize data and test how various options affect data?</p>	<ul style="list-style-type: none"> • Filter and sort data. • Write, edit, and use formulas. • Use absolute, relative, and mixed references. • Create, modify, and position diagrams. • Create, modify, and position charts. • Use a PivotTable and PivotChart • Modify text formatting and text content using formulas • Perform What-If Analysis • Use conditional logic in a formula • Display and print formulas Use LOOKUP and Reference 	<p>Data Analysis: Students in cooperative teams will use a spreadsheet and graphing program such as Google Sheets or Microsoft Excel to graph and evaluate a large data set. The data sets provided come from authentic arctic ground squirrel research completed at Toolkit Research station in arctic Alaska. The data sets were downloaded from body temperature loggers implanted into individual animals to better understand the physiology of hibernation. In this activity, student teams will generate graphs individually or in pairs. With graphs visible for interpretation, teams will compare and contrast male and female body</p>	<p>Data Analysis Toolpack https://support.office.com/en-us/article/Use-the-Analysis-ToolPak-to-perform-complex-data-analysis-f77cbd44-fdce-4c4e-872b-898f4c90c007</p> <p>Data Analysis Excel https://www.youtube.com/watch?v=YoDJa8ZSHik</p>

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
		<p>functions</p> <ul style="list-style-type: none"> • Import and export data • Publish data as a Web page • Create a template for repeated use • Consolidate data • Modify workbook properties • Save workbooks in a macro enabled format • Create and run a macro 	<p>temperature changes through the arctic year. Possible explanations for observations will be discussed within the group and as a class.</p> <p>https://www.polartrec.com/files/resources/lesson/39964/docs/wille_lesson_complete_dataanalysis.pdf</p> <p>Tracking Steps and Data Analysis: Each day you can enter your walking miles, time, steps and any notes. This Excel spreadsheet calculates your total mileage per month, walking time per month, minutes per mile and minutes per kilometer, and total steps.</p> <p>https://www.verywell.com/tracking-your-walks-3432825</p>	
Elaborate on the use of		<ul style="list-style-type: none"> • Use a template. 	Excel Lesson Plan and	

Student Learning Objectives (SLOs)	Essential Questions	Skills & Indicators	Sample Activities	Resources
<p>Excel to manage workbooks in the workplace.</p> <p>NJSLS: 8.1.12.A.2; 8.1.12.A.4; 8.1.12.D.5; 8.1.12.F.1; 9.3.12.BM-MGT.5; 9.3.12.BM-MGT.7; 9.3.12.BM-BIM.2; 9.3.12.BM.1 CCTC: BM-MGT.5 ;BM-MGT.7; BM-BIM.2; BM.1 CCSS: CCSS.MATH.CONTENT.HSS.ID.A.4; CCSS.MATH.CONTENT.HSS.IC.B.6</p>	<p>How is Excel used to manage workbooks in the work environment?</p> <p>What skills are essential to working collaboratively with Excel?</p> <p>What advanced formatting techniques can be applied to make an excel worksheet have a stronger visual impact?</p>	<ul style="list-style-type: none"> • Organize worksheets. • Split, freeze, hide, and arrange workbooks. • Save and preview worksheets as Web pages. • Set up pages for printing. • Rename folders and covert files to different formats. • Create custom formats • Use conditional formatting • Change the brightness and contrast of a picture • Resize and rotate a graphic Format parts of a chart 	<p>Activities: http://faculty.kutztown.edu/schaeffe/Excel/Excel.html</p> <p>Worksheet Activities: http://www.excel-easy.com/basics/worksheets.html</p>	<p>Excel tutorial: How to manage multiple worksheets https://www.youtube.com/watch?v=VFxTILepps</p> <p>Manage Data in Worksheets https://www.office-addins.com/-excel-addins/manage-data.php</p>

Unit 2 Vocabulary

Active cell
Auto fill
Auto sum
Cell
Cell address
Cell grid
Formula bar
Function
Label
Row
Fill down
Fill right
Formula

Formula bar
Function
Headings
Row
Sheet tabs
Workbook
Worksheet
Sheet tabs
Column
Drag
File

Suggested Unit Projects

Choose At Least One

Data Analysis Fast Food Project:

Students apply research, problem solving, math, analysis, writing, and spreadsheet skills in this "real world" project that complements the Ryan Health and Math core curriculum. In Part 1, they setup a spreadsheet file to meet specific requirements, choose one teacher-provided fast food nutrition website (choices below), and design a meal with a main dish, side dish, drink and dessert. They use the website to find and enter calorie and fat calorie data into the spreadsheet. Finally, they enter formulas using cell references to calculate non-fat calories, total calories, and percent fat for each item and the meal. In Part 2, students interpret and analyze the data by completing an online worksheet. They collect recommended daily calories and percent fat for their age/gender from a website resource, and compare their meal with the recommended meal calories and percent fat.

<http://www.tewksbury.k12.ma.us/webpages/sspollen/resources.cfm?subpage=715630>

Biggest Loser - Animal Edition :

Students act as nutrition consultants to the National Zoo and design a daily meal plan for Nikki the bear, an omnivore that requires 10,000-20,000 calories per day. They will apply problem-solving skills and their knowledge of entering formulas in a teacher-created Excel spreadsheet to design a meal plan that includes 3 meals and 4 snacks with a total of 16 items. Students will select food items from a reference sheet of foods, and enter the number of servings, the item and amount of a serving, and the calories per serving. When the meal plan is complete, they will enter sum and division (percent) formulas to answer specific questions about their meal plan, such as the total calories from meats and seafood and the percent of calories from meats and seafood.

<http://www.tewksbury.k12.ma.us/webpages/sspollen/resources.cfm?subpage=715630>

Suggested Structured Learning Experiences

Microsoft Technology Center
Software Company
11 Times Square
(212) 245-2100

Apple Fifth Avenue
767 5th Ave
(212) 336-1440