#### NORTHERN YORK COUNTY SCHOOL DISTRICT

#### PROFESSIONAL COMPUTER APPLICATIONS

7805

2008-2009

## **Professional Computer Applications**

Textbook:  Expected Level of Achievement	Office 2007 Introductory, Pasewark and Pasewark, Course Technology, Cengage Learning, © 2008.  Students will be required to maintain a 70% or better. They will be required to come to class prepared to learn.  93-100% = A  85 - 92% = B  77 - 84% = C  70 - 76% = D
Length of Course:  Prerequisites:	Frequency: 6 days per 6 day cycle Duration: 44 minutes Length: Year Credits: 1  Proficiency using Microsoft Word
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>
Course Description:	In <i>Professional Computer Applications</i> , students will become proficient with <i>Microsoft Office 2007</i> software. <i>Microsoft Excel</i> will be used to manage finances, work with formulas, charts and graphics, and develop a professional worksheet. <i>Microsoft PowerPoint</i> software will be used to create presentations with text, clip art, and sound; build and modify charts and tables; and to print. <i>Microsoft Publisher</i> will be used to create and edit projects such as brochures with text, clip art images, and Design Gallery objects. A capstone simulation will be completed incorporating all the applications used.

Course Name:	Professional Computer Applications				
Content:	Excel Basics				
Key Learning(s):	<ul> <li>✓ A spreadsheet is a grid of rows and columns in which text, numbers, and the results of calculations are entered.</li> <li>✓ The purpose of a spreadsheet is to solve problems with numbers.</li> <li>✓ A worksheet is a computerized spreadsheet while the workbook contains a collection of related worksheets.</li> <li>✓ A worksheet contains cells, rows, and columns.</li> <li>✓ Data is entered, edited, and moved using cells, which are intersections of rows and columns.</li> </ul>				
Essential Question(s):	<ul> <li>✓ What is a spreadsheet?</li> <li>✓ What is the purpose of a spreadsheet?</li> <li>✓ What is the difference between a worksheet and a workbook?</li> <li>✓ What are the parts of a worksheet?</li> <li>✓ How do you use a worksheet?</li> </ul>				
Vocabulary:	Active CellActive WorksheetCellColumnFormulaFormula BarRangeRowSpreadsheetWorkbookWorksheet				
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources

	National Standards for Busi-	Describe a spreadsheet, worksheet, and	Observe techniques and proce-	Textbook: Microsoft Office
	ness Education	workbook.	dures and provide feedback.	2007 Introductory, Pasewark and Pasewark, ©2008, Course
VI.	Information Technology: In-	Identify the parts of a worksheet.	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	,		
	technologies appropriately to	Match keyboard shortcuts with move-	Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	ments.		Lesson Plans
2710	data.	Evalsing how a formula har is used	Assess application projects	Data files Annotated Solutions
3.7.10	Science and Technology PA	Explains how a formula bar is used.	Assessment of critical thinking	Exam View
	State Standard – Technological	Complete tutorial exercises on spread-	activities	Exam view
	Devices	sheet basics.	ded vices	Teacher-prepared worksheets
		✓ Opening a workbook	Quizzes and exams	
	C. Apply basic computer op-	✓ Saving a workbook		Computers/Software
	erations and concepts.	✓ Moving the active cell	Assessment of Capstone Simu-	A 1' ' 134 1'
	✓ Apply touch keyboarding	✓ Selecting cells ✓ Entering data	lation	Audiovisual Media PowerPoint Presentations
	skills and techniques at	✓ Editing data		1 ower out 1 resentations
	expectable speed and ac-	✓ Finding and replacing data		
	curacy.	✓ Previewing and printing a worksheet		
		✓ Closing a workbook.		
	D. Utilize computer software			
	to solve specific problems.	Create, modify, store, retrieve, and print projects using various Excel commands.		
	✓ Apply advanced word	projects using various Exect communes.		
	processing, database and	Complete applications using applied		
	spreadsheet skills.	skills. Use problem-solving, decision-		
	✓ Describe and demonstrate	making, and critical thinking skills to		
	how two or more soft-	resolve problems in order to master the feature.		
	ware applications can be used to produce an out-	✓ Develop two numerical problems in		
	put.	the categories of business, career, per-		
	✓ Select and apply software	sonal, and school.		
	designed to meet specific	✓ Answer questions about selecting		
	needs.	ranges using Excel help.		
		Transfer knowledge of features to vari-		
		Transfer knowledge of reactive to vari		

ous document production assignments

	<u> </u>
throughout the course.  ✓ Complete a capstone simulation integrating and applying all skills learned.	

	Northern York County School District Curriculum					
Course Name:	Professional Computer A	Professional Computer Applications				
Content:	Changing the Appearance	e of a Worksheet				
Key Learning(s):	✓ The appearance of a worksheet is changed by using various fonts, font sizes, styles, colors, borders, alignments, and column widths and heights.					
Essential Question(s):	✓ How do you change the ap	ppearance of a worksheet?				
Vocabulary:	Alignment Autofit Border Editing Mode Font Format Painter Live Preview Merge Style Theme Truncate					
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>					

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Discuss how information is most valua-	Observe techniques and proce-	Textbook: Microsoft Office
	ness Education	ble when it is in a format that is easy to	dures and provide feedback.	2007 Introductory, Pasewark
		understand.		and Pasewark, ©2008, Course
VI.	Information Technology: In-		Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	Match format terms with description.		
	technologies appropriately to		Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	Complete tutorial exercises on changing		Lesson Plans
	data.	the appearance:	Assess application projects	Data files
3.7.10		✓ Changing column width and row		Annotated Solutions
	Science and Technology PA	height	Assessment of critical thinking	Exam View
	State Standard – Technological	✓ Positioning data with alignment,	activities	
	Devices	wrapping, rotating, and indenting.		Teacher-prepared worksheets
		✓ Using fonts, font sizes, styles, colors,	Quizzes and exams	
	C. Apply basic computer op-	and borders.		Computers/Software
	erations and concepts.	✓ Designating the number format used	Assessment of Capstone Simu-	
		for data in a cell.	lation	Audiovisual Media
	✓ Apply touch keyboarding	✓ Using the Format Painter tool.		PowerPoint Presentations
	skills and techniques at	✓ Applying and clearing cell styles.		
	expectable speed and ac-	✓ Finding and replacing cell formats.		
	curacy.			
		Create, modify, store, retrieve, and print		
	D. Utilize computer software	application projects using various for-		
	to solve specific problems.	matting features.		
	A maley advomand vyord	Complete workshoots using applied		
	✓ Apply advanced word	Complete worksheets using applied		
	processing, database and spreadsheet skills.	skills. Use problem-solving, decision- making, and critical thinking skills to		
	✓ Describe and demonstrate	resolve problems in order to master the		
	how two or more soft-	feature.		
	ware applications can be	✓ Identify ways to make worksheets eas-		
	used to produce an out-	ier to understand.		
	put.	✓ Use the Help feature to research how		
	✓ Select and apply software	to save time by using the mini toolbar.		
	designed to meet specific	to save time by using the min toolbar.		
	needs.	Transfer knowledge of features to vari-		
		ous document production assignments		

_
7
/

		1
	throughout the course.  ✓ Complete a capstone simulation inte-	
	grating and applying all skills learned.	

#### **Northern York County School District Curriculum** Professional Computer Applications Course Name: Organizing a Worksheet **Content: Key Learning(s):** ✓ Data should be arranged so that it is easy to locate, read, and interpret. **Essential Ques-**✓ How should data be arranged on a worksheet? tion(s): Cut Page Break Preview Copy Paste Fill Handle Freeze Pane Vocabulary: Fill Scale Print Area Print Title Split 9<sup>th</sup> - 12<sup>th</sup> **Grade Level:**

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Match commands to their actions.	Observe techniques and proce-	Textbook: Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Complete tutorial exercises on organizing		and Pasewark, ©2008, Course
VI.	Information Technology: In-	the worksheet:	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	✓ Copying and moving data to other cells		
	technologies appropriately to	✓ Using drag-and-drop method	Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	✓ Inserting and deleting rows, columns,		Lesson Plans
	data.	and cells	Assess application projects	Data files
3.7.10		✓ Freezing panes		Annotated Solutions
	Science and Technology PA	✓ Splitting a window	Assessment of critical thinking	Exam View
	State Standard – Technological	✓ Checking spelling	activities	
	Devices	✓ Preparing for printing		Teacher-prepared worksheets
		✓ Inserting footers and headers	Quizzes and exams	
	C. Apply basic computer op-			Computers/Software
	erations and concepts.	Create, modify, store, retrieve, and print	Assessment of Capstone Simu-	
		application projects using various orga-	lation	Audiovisual Media
	✓ Apply touch keyboarding	nizing features.		PowerPoint Presentations
	skills and techniques at			
	expectable speed and ac-	Complete spreadsheets using applied		
	curacy.	skills. Use problem-solving, decision-		
		making and critical thinking skills to re-		
	D. Utilize computer software	solve problems in order to master the fea-		
	to solve specific problems.	ture.		
		✓ Set up a worksheet to record data about		
	✓ Apply advanced word	a chimpanzee's activities.		
	processing, database and			
	spreadsheet skills.	Transfer knowledge of features to various		
	✓ Describe and demonstrate	document production assignments		
	how two or more soft-	throughout the course.		
	ware applications can be	✓ Complete a capstone simulation inte-		
	used to produce an out-	grating and applying all skills learned.		
	put.			
	✓ Select and apply software			
	designed to meet specific			
	needs.			

Course Name:	Professional Computer Applications				
Content:	Formulas and Functions				
Key Learning(s):	<ul> <li>✓ A formula is the equations used to calculate values in a cell and must begin with an = sign.</li> <li>✓ A function is a shorthand way to write an equation that performs a calculation.</li> </ul>				
Essential Question(s):	✓ What are formulas? ✓ What are functions?				
Vocabulary:	Absolute Cell Reference Mixed Cell Reference Order Of Evaluation Function	Formula Operand Relative Cell Reference Formula Bar	Manual Calculation Operator Argument		
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Explain formula.	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Discuss steps necessary to display formu-		and Pasewark, ©2008, Course
VI.	Information Technology: In-	las in a worksheet.	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input			
	technologies appropriately to	Match formulas and descriptions of op-	Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	erations performed.		Lesson Plans
	data.		Assess application projects	Data files
3.7.10		Distinguish between relative, absolute,		Annotated Solutions
	Science and Technology PA	and mixed cell references.	Assessment of critical thinking	Exam View
	State Standard – Technological		activities	
	Devices	Complete tutorial exercises on formulas:		Teacher-prepared worksheets
		✓ Entering and editing formulas	Quizzes and exams	
	C. Apply basic computer op-	✓ Creating Formulas quickly		Computers/Software
	erations and concepts.	✓ Previewing calculations	Assessment of Capstone Simu-	_
	-	✓ Showing formulas in a worksheet	lation	Audiovisual Media
	✓ Apply touch keyboarding	✓ Calculating formulas manually		PowerPoint Presentations
	skills and techniques at			
	expectable speed and ac-	Explain the use of functions.		
	curacy.			
		Identify the parts of a function.		
	D. Utilize computer software			
	to solve specific problems.	Determine functions and arguments.		
	✓ Apply advanced word	Complete tutorial exercises on functions:		
	processing, database and	✓ Enter formulas with functions		
	spreadsheet skills.	✓ Use functions to solve math problems		
	✓ Describe and demonstrate	✓ Use functions to solve financial prob-		
	how two or more soft-	lems		
	ware applications can be	✓ Use logical functions to make decisions		
	used to produce an out-	✓ Use functions to insert times and dates		
	put.	in a worksheet		
	✓ Select and apply software	✓ Use text functions to format and work		
	designed to meet specific	with cell contents.		
	needs.			
		Complete spreadsheets using applied		

skills. Use problem-solving, decisionmaking and critical thinking skills to resolve problems in order to master the feature.

- ✓ Create worksheets with formulas.
- ✓ Create worksheets with manual calculations.
- ✓ Create a customer invoice.
- ✓ Create a worksheet comparing three job offers.
- ✓ Use the help feature to find the differences between absolute and relative cell references.
- ✓ Create a worksheet comparing car prices
- ✓ Write an If function for an overextended budget item.

Transfer knowledge of features to various document production assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Course Name:	Professional Computer Applications				
Content:	Enhancing Worksheets				
Key Learning(s):	<ul> <li>✓ Worksheets can be enhanced by SmartArt graphics, inserting pictures, using templates, and inserting hyperlinks.</li> <li>✓ Sorting rearranges data in a more meaningful order.</li> <li>✓ Filtering displays a subset of the data that meets certain criteria and temporarily hides rows not meeting the specified criteria.</li> <li>✓ Conditional formatting highlights worksheet data by changing the look of cells that meet a specified condition.</li> </ul>				
Essential Question(s):	<ul> <li>✓ How is a worksheet enhanced?</li> <li>✓ What is sorting?</li> <li>✓ What is filtering?</li> <li>✓ What is conditional formatting?</li> </ul>				
Vocabulary:	Ascending Sort Autofilter Comment Conditional Formatting Descending Sort Filter Hyperlink Object Picture SmartArt Graphics Sort Template				
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Compare ascending and descending order.	Observe techniques and proce-	<b>Textbook:</b> Microsoft
	Education		dures and provide feedback.	Office 2007 Introductory,
		Compare and contrast sorting and filtering		Pasewark and Pasewark,
VI.	Information Technology: Input	<mark>data.</mark>	Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-			ogy, Cengage Learning
	ogies appropriately to enter and	Discuss how comments are used.	Assess review activities	
	manipulate text and data.			Instructor's CD-ROM
		Identify categories of SmartArt graphics.	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State			Data files
	Standard – Technological Devices	Match terms to descriptions.	Assessment of critical thinking	Annotated Solutions
			activities	Exam View
	C. Apply basic computer opera-	Complete tutorial exercises on enhancing		
	tions and concepts.	the worksheet:	Quizzes and exams	Teacher-prepared work-
		✓ Sorting data		sheets
	✓ Apply touch keyboarding	✓ Using AutoFilter	Assessment of Capstone Simu-	
	skills and techniques at ex-	✓ Apply conditional formatting	lation	Computers/Software
	pectable speed and accuracy.	✓ Hiding worksheet columns and rows		
		✓ Inserting shapes		Audiovisual Media
	D. Utilize computer software to	✓ Inserting SmartArt graphics		PowerPoint Presenta-
	solve specific problems.	✓ Inserting pictures		tions
		✓ Using a template		
	✓ Apply advanced graphic ma-	✓ Inserting a hyperlink		
	nipulation and desktop	✓ Saving a workbook indifferent file for-		
	publishing techniques.	mats		
	✓ Apply advanced word	✓ Inserting, editing, and deleting com-		
	processing, database and	ments		
	spreadsheet skills.	✓ Using the Research task pane		
	✓ Describe and demonstrate			
	how two or more software	Create, modify, store, retrieve, and print		
	applications can be used to	application projects using various en-		
	produce an output.	hancement features.		
	✓ Select and apply software de-			
	signed to meet specific			
	needs.	Complete spreadsheets using applied		
		skills. Use problem-solving, decision-		
		making and critical thinking skills to re-		

solve problems in order to master the feature.  ✓ Research a national park using the Research task pane.  ✓ Locate clip art, format it, and insert into a worksheet.  ✓ Format a SmartArt graphic to illustrate at least three levels of hierarchy.	
Transfer knowledge of features to various assignments throughout the course.  ✓ Complete a capstone simulation integrating and applying all skills learned.	

Course Name:	Professional Computer Applications				
Content:	Multiple Worksheets and Work	kbooks			
Key Learning(s):	✓ A workbook is the file used to store a collection of related worksheets, while a worksheet is a computerized spreadsheet identified by sheet tabs that appear at the bottom of the workbook window.				
Essential Question(s):	✓ What is the difference between a workbook and a worksheet?				
Vocabulary:	3-D Reference Active Sheet Source Destination Sheet Tab Worksheet Range				
	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Compare workbooks and worksheets.	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Complete tutorial exercises on multiple		and Pasewark , ©2008, Course
VI.	Information Technology: In-	worksheets and workbooks:	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	✓ Moving between worksheets		
	technologies appropriately to	✓ Renaming worksheets	Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	✓ Changing sheet tabs color		Lesson Plans
	data.	✓ Repositioning worksheets	Assess application projects	Data files
3.7.10		✓ Hiding and unhiding worksheets		Annotated Solutions
	Science and Technology PA	✓ Inserting and deleting worksheets	Assessment of critical thinking	Exam View
	State Standard – Technological	✓ Creating cell references	activities	

Devices

- C. Apply basic computer operations and concepts.
  - ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - ✓ Select and apply software designed to meet specific needs.

✓ Creating 3-D references

- ✓ Printing workbooks
- ✓ Arranging multiple workbooks in the window
- ✓ Moving and copying worksheets between workbooks.

Create, modify, store, retrieve, and print application projects using worksheet options.

Complete spreadsheets using applied skills. Use problem-solving, decision-making, and critical thinking skills to resolve problems in order to master the feature.

- ✓ Describe ways to guard against losing important information on a worksheet?
- ✓ Compare printing options and name a circumstance to use for each option.
- ✓ Use help to find out how to create an external reference to a cell.

Transfer knowledge of features to various assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Quizzes and exams

Assessment of Capstone Simulation

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications				
Content:	Working with Charts				
Key Learning(s):	<ul> <li>✓ Charts make the data in a worksheet easier to understand by providing a visual picture of the data.</li> <li>✓ Column, line, pie, and scatter charts can be created in Excel.</li> </ul>				
Essential Question(s):	<ul><li>✓ What is the purpose of charting worksheet data?</li><li>✓ What types of charts can be created in Excel?</li></ul>				
Vocabulary:	Axis Chart Legend Line Chart Pie Chart Scatter Chart Selection Box Sizing Handles Plot Area Data Label Data Marker Data Series Data Source				
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Identify the purpose of charting work-	Observe techniques and proce-	Textbook: Microsoft Office
	ness Education	sheet data.	dures and provide feedback.	2007 Introductory, Pasewark
			_	and Pasewark, ©2008, Course
VI.	Information Technology: In-	Identify the types of charts you can create	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	in Excel.		
	technologies appropriately to		Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	After reading scenarios, determine the		Lesson Plans
	data.	best chart type to illustrate the data.	Assess application projects	Data files
3.7.10				Annotated Solutions
	Science and Technology PA	Complete tutorial exercises on working	Assessment of critical thinking	Exam View
	State Standard – Technological	with charts	activities	
	Devices	✓ Moving charts		Teacher-prepared worksheets
		✓ Updating data sources	Quizzes and exams	
	C. Apply basic computer op-	✓ Selecting chart elements		Computers/Software
	erations and concepts.	✓ Choosing a chart layout and styles	Assessment of Capstone Simu-	
	-	✓ Display or hide chart elements	lation	Audiovisual Media
	✓ Apply touch keyboarding	✓ Designing charts		PowerPoint Presentations
	skills and techniques at	✓ Formatting and modifying charts		
	expectable speed and ac-	✓ Editing and formatting chart text		
	curacy.	✓ Changing the chart types.		
		✓ Clearing formatting.		
	D. Utilize computer software			
	to solve specific problems.	Create charts using applied skills. Use		
		problem-solving, decision-making and		
	✓ Apply advanced word	critical thinking skills to resolve problems		
	processing, database and	in order to master the feature.		
	spreadsheet skills.	✓ Pie chart		
	✓ Describe and demonstrate	✓ Scatter chart		
	how two or more soft-	✓ Clustered column chart		
	ware applications can be	✓ 2-d line charts		
	used to produce an out-			
	put.	Transfer knowledge of features to various		
	✓ Select and apply software	document production assignments		
	designed to meet specific	throughout the course.		
	needs.	✓ Complete a capstone simulation inte-		
		grating and applying all skills learned.		

Course Name:	Professional Computer Applications				
Content:	PowerPoint Basics				
Key Learning(s):	<ul> <li>✓ PowerPoint is a program used to create professional presentations.</li> <li>✓ Presentations can include text, drawn graphics, clipart, photographs, tables, and charts.</li> </ul>				
Essential Question(s):	<ul><li>✓ What is a PowerPoint?</li><li>✓ What features can a presentation include?</li></ul>				
Vocabulary:	Animation Layout Slide Layout Side Pane Slide Sorter View Status Bar Thumbnails Title Bar Transition Task Pane Tab				
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Identify the elements of the PowerPoint	Observe techniques and proce-	Textbook: Microsoft
	Education	window.	dures and provide feedback.	Office 2007 Introductory,
				Pasewark and Pasewark,
VI.	Information Technology: Input	Complete tutorial exercises on Power-	Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-	Point basics.		ogy, Cengage Learning
	ogies appropriately to enter and	✓ Starting PowerPoint	Assess review activities	
	manipulate text and data.	✓ Opening existing presentations		Instructor's CD-ROM
		✓ Saving presentations	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State	✓ Navigating through presentations		Data files
	Standard – Technological Devices	✓ Changing views	Assessment of critical thinking	Annotated Solutions
		✓ Using the slides and outline abs	activities	Exam View
	C. Apply basic computer opera-	✓ Using the ribbon		

tions and concepts.

- ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced graphic manipulation and desktop publishing techniques.
  - ✓ Apply basic multimedia applications.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
- ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
- ✓ Select and apply software designed to meet specific needs.

✓ Using the slide pane and notes pane

- ✓ Changing the layout
- ✓ Deleting a slide
- ✓ Print a presentation
- ✓ Exiting PowerPoint

Create, modify, store, retrieve, and print PowerPoint application projects using various features.

Complete PowerPoint projects using applied skills. Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the features.

Transfer knowledge of features to various assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Quizzes and exams

Assessment of Capstone Simulation

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications				
Content:	PowerPoint—Creating and E	Inhancing Presentations			
Key Learning(s):	<ul> <li>✓ Presentations can be enhanced by using various themes, fonts, colors, layouts, and inserting graphics.</li> <li>✓ Templates are presentations formatted with certain themes, graphics, color, fonts, and layouts.</li> <li>✓ The advantage of using a template is that it is easier and less time consuming than starting with a blank document.</li> </ul>				
Essential Question(s):	<ul> <li>✓ How can presentations be enhanced?</li> <li>✓ What is a template?</li> <li>✓ What is the advantage of using a template?</li> </ul>				
Vocabulary:	Animation Blank Presentation Design Template Effect Options Hyperlink Motion Paths Notes Master Place Holder Slide Master Slide Transitions Handout Master				
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Identify the elements of the PowerPoint	Observe techniques and proce-	Textbook: Microsoft
	Education	window.	dures and provide feedback.	Office 2007 Introductory,
				Pasewark and Pasewark,
VI.	Information Technology: Input	Complete tutorial exercises on Power-	Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-	Point enhancements.		ogy, Cengage Learning
	ogies appropriately to enter and	✓ Creating presentations	Assess review activities	
	manipulate text and data.	✓ Inserting headers and footers		Instructor's CD-ROM
		✓ Applying themes	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State	✓ Using the Slide Master		Data files
	Standard – Technological Devices	✓ Using the Notes and Handout Master	Assessment of critical thinking	Annotated Solutions

- C. Apply basic computer operations and concepts.
  - ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced graphic manipulation and desktop publishing techniques.
  - ✓ Apply basic multimedia applications.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - Select and apply software designed to meet specific needs.

- ✓ Editing pictures
- ✓ Adding slides
- ✓ Finding and replacing text
- ✓ Adding text to slides
- ✓ Adding notes to slides
- ✓ Changing text alignment, spacing, case, and tabs
- ✓ Working with bullets
- ✓ Changing font attributes
- ✓ Checking spelling, style, and usage
- ✓ Formatting slides
- ✓ Adding clip arts and sounds to slides
- ✓ Inserting hyperlinks
- ✓ Applying custom animation
- ✓ Applying slide transitions

Create, modify, store, retrieve, and print PowerPoint application projects using various features.

Complete PowerPoint projects using applied skills. Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the features.

Transfer knowledge of features to various assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

activities

Quizzes and exams

Assessment of Capstone Simulation

Exam View

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications				
Content:	PowerPoint Visual Elements	3			
Key Learning(s):	<ul> <li>✓ Graphics are a more powerful way to visually convey information about flow, sequence, process, and organization.</li> <li>✓ The seven categories of SmartArt graphics are List, Process, Cycle, Hierarchy, Relationship, Matrix, and Pyramid.</li> <li>✓ An organization chart shows the hierarchical structure and relationships within an organization.</li> </ul>				
Essential Question(s):	<ul> <li>✓ Why are graphics sometimes better than text to present information?</li> <li>✓ What are the seven categories of SmartArt Graphics?</li> <li>✓ What is an organizational chart?</li> </ul>				
Vocabulary:	Adjustment Handle Cell Chart Column Datasheet Grouping Handle Organization Chart Rotate Handle Row SmartArt Graphic Table WordArt				
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>				

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Identify the seven categories of SmartArt.	Observe techniques and proce-	<b>Textbook:</b> Microsoft
	Education		dures and provide feedback.	Office 2007 Introductory,
		Explain the use of an organizational chart.		Pasewark and Pasewark,
VI.	Information Technology: Input		Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-	Discuss how to use tables to keep track of		ogy, Cengage Learning
	ogies appropriately to enter and	inventory, sales, and members.	Assess review activities	
	manipulate text and data.			Instructor's CD-ROM
		Discuss creating a log and brochure for a	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State	business.		Data files

#### Standard - Technological Devices

- C. Apply basic computer operations and concepts.
  - ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced graphic manipulation and desktop publishing techniques.
  - ✓ Apply basic multimedia applications.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - ✓ Select and apply software designed to meet specific needs.

# Complete tutorial exercises on Power-Point graphics.

- ✓ Inserting SmartArt graphics
- ✓ Converting text to graphics
- ✓ Adding and formatting organization charts
- ✓ Entering text into a SmartArt graphic
- ✓ Creating and formatting WordArt
- ✓ Building and formatting charts
- ✓ Creating a table
- ✓ Modifying a table's style and layout
- ✓ Drawing, selecting, manipulating, and formatting objects
- ✓ Scaling and sizing an object
- ✓ Copying, moving, and grouping objects
- ✓ Creating text boxes on shapes
- ✓ Animating shapes
- ✓ Ordering visual elements on a slide
- ✓ Inserting objects on a slide
- ✓ Adding a header or footer

Create, modify, store, retrieve, and print PowerPoint application projects using various SmartArt graphics.

Complete PowerPoint projects using applied skills. Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the features.

- ✓ Create a school's organizational chart.
- ✓ Research topics and present information in PowerPoint form.
- ✓ Create a presentation on a business the student wants to start.

Transfer knowledge of features to various

Assessment of critical thinking activities

Quizzes and exams

Assessment of Capstone Simulation

Annotated Solutions Exam View

Teacher-prepared worksheets

Computers/Software

Audiovisual Media
PowerPoint Presentations

		20
	assignments throughout the course.	
	✓ Complete a capstone simulation inte-	
	grating and applying all skills learned.	
	2 2 11 2	

Course Name:	Professional Computer Applications			
Content:	PowerPoint Integration			
Key Learning(s):	✓ Integration is used by transferring data from various software programs and incorporating it into a PowerPoint presentation.			
<b>Essential Question(s):</b>	✓ How is integration used in PowerPoint presentations?			
Vocabulary:	Action Button Document Inspector Grid Package for CD	Comment Document Properties Guides Snap To Source File	Custom Show Embed Link	Destination File, Format Painter Linked Object
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>			

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Recognize terms used with integration.	Observe techniques and proce-	<b>Textbook:</b> Microsoft
	Education		dures and provide feedback.	Office 2007 Introductory,
		Discuss situations requiring annotation of		Pasewark and Pasewark,
VI.	Information Technology: Input	a show.	Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-			ogy, Cengage Learning
	ogies appropriately to enter and	Discuss when to create a Layout Master.	Assess review activities	
	manipulate text and data.			Instructor's CD-ROM
		Complete tutorial exercises on Power-	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State	Point integration.		Data files
	Standard – Technological Devices	✓ Integrating with other programs	Assessment of critical thinking	Annotated Solutions
		✓ Creating a new master	activities	Exam View
	C. Apply basic computer opera-	✓ Formatting text and objects		

tions and concepts.

- ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced graphic manipulation and desktop publishing techniques.
  - ✓ Apply basic multimedia applications.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - Select and apply software designed to meet specific needs.

✓ Aligning text and pictures

- ✓ Inserting comments
- ✓ Setting up a slide show
- ✓ Packaging a presentation
- ✓ Saving to view on Web
- ✓ Sending via E-mail
- ✓ Creating output

Create, modify, store, retrieve, and print PowerPoint application projects using various features.

Complete PowerPoint presentations using applied skills. Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the features.

- ✓ Presentations using embedding, formatting, layout, and themes.
- ✓ Create a custom slide show to be published on the Web.

Transfer knowledge of features to various assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Quizzes and exams

Assessment of Capstone Simulation

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications			
Content:	Publisher Basics			
Key Learning(s):	<ul> <li>✓ Publisher is used to create publications such as newsletters, brochures, business cards, and restaurant menus.</li> <li>✓ Templates are predesigned layouts used to create professional-looking documents.</li> <li>✓ A business information set is a collection of information about an individual stored to be used with templates.</li> </ul>			
Essential Question(s):	<ul> <li>✓ Why use Publisher software?</li> <li>✓ What are templates?</li> <li>✓ What is a business information set?</li> </ul>			
Vocabulary:	Business Information Set Design Gallery Object Design Checker Logo Publication Types List Task Pane Template			
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>			

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Describe items created using Publisher.	Observe techniques and proce-	<b>Textbook:</b> Microsoft
	Education		dures and provide feedback.	Office 2007 Introductory,
		Identify the categories of functions found		Pasewark and Pasewark,
VI.	Information Technology: Input	in the task panes.	Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-			ogy, Cengage Learning
	ogies appropriately to enter and	Discuss the benefits of using clip art.	Assess review activities	
	manipulate text and data.			Instructor's CD-ROM
		Discuss what features would be used to	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State	create a company logo.		Data files
	Standard – Technological Devices		Assessment of critical thinking	Annotated Solutions
		Discuss what gets a person's attention	activities	Exam View

- C. Apply basic computer operations and concepts.
  - ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced graphic manipulation and desktop publishing techniques.
  - ✓ Apply basic multimedia applications.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - ✓ Select and apply software designed to meet specific needs.

when reading a sales paper.

# Complete Tutorial Exercises On Publisher Basics.

- ✓ Starting the program
- ✓ Choosing a template
- ✓ Creating a business information set
- ✓ Saving a publication
- ✓ Modifying a publication
- ✓ Inserting a design gallery object
- ✓ Using the design checker
- ✓ Printing a publication
- ✓ Closing a publication

Create, modify, store, retrieve, and print Publisher application projects using various features.

Complete publications using applied skills. Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the features.

- ✓ Run Design Checker to edit a gift certificate and explain why errors occurred.
- ✓ Create a birthday card with a personalized message.

Transfer knowledge of features to various assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Quizzes and exams

Assessment of Capstone Simulation

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications		
Content:	Enhancing Publisher Documents		
Key Learning(s):	✓ Enhancing a project with personalized features creates attractive, professional-looking publications to meet personal nee of a business, person, or school.		
<b>Essential Question(s):</b>	✓ Why enhance a predesigned template?		
Vocabulary:	Content Library Layout Guides Master Page Object Page Navigator Panel Heading		
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>		

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Business	Identify the various types of layout guides	Observe techniques and proce-	<b>Textbook:</b> Microsoft
	Education	used in positioning objects.	dures and provide feedback.	Office 2007 Introductory,
				Pasewark and Pasewark,
VI.	Information Technology: Input	Explain how to create your own guides.	Assess tutorial exercises	©2008, Course Technol-
	<u>Technologies</u> : Use input technol-			ogy, Cengage Learning
	ogies appropriately to enter and	Discuss how to use Master Pages.	Assess review activities	
	manipulate text and data.			Instructor's CD-ROM
		Discuss when to create a Layout Master.	Assess application projects	Lesson Plans
3.7.10	Science and Technology PA State			Data files
	Standard – Technological Devices	Review professional publications and de-	Assessment of critical thinking	Annotated Solutions
		termine where guides may have been	activities	Exam View
	C. Apply basic computer opera-	used, what types of shapes were used, and		
	tions and concepts.	if text was entered inside shapes.	Quizzes and exams	Teacher-prepared work-
				sheets

- ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced graphic manipulation and desktop publishing techniques.
  - ✓ Apply basic multimedia applications.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - Select and apply software designed to meet specific needs.

# Complete Tutorial Exercises On Publisher features.

- ✓ Entering text
- ✓ Inserting Pictures
- ✓ Working with Objects
- ✓ Using the Content Library
- ✓ Inserting text from a Word Document
- ✓ Using Find and Replace
- ✓ Checking spelling

Create, modify, store, retrieve, and print Publisher application projects using various features.

Complete publications using applied skills. Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the features.

- ✓ Create vertical and horizontal guides.
- ✓ Format, align, and arrange AutoShapes; group them; and add to the Content Library.
- ✓ Create paper airplanes and folding projects from Publisher templates.

# Transfer knowledge of features to various assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Assessment of Capstone Simulation

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications			
Content:	Access Basics			
Key Learning(s):	<ul> <li>✓ A DBMS is a program that allows a person to store, retrieve, analyze, and print information, which can be manual or computerized.</li> <li>✓ A computerized DBMS is much faster, more flexible, more accurate, more efficient, and more cost effective than using file folders.</li> <li>✓ A record is a complete set of data made up of one or more fields.</li> </ul>			
Essential Question(s):	<ul> <li>✓ What is a database management system?</li> <li>✓ What is the advantage of using a computerized DBMS?</li> <li>✓ What is a record?</li> </ul>			
Vocabulary:	Best Fit Data Sheet Field Name Record	Compacting Datasheet Selector Field Selector Record Selector	Database Datasheet View Field Value	Database Management System Field Navigation Pane
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>			

VI. Information Technology: Input Technologies: Use input technologies: Use input technologies appropriately to enter and manipulate text and data.  3.7.10  Science and Technology PA State Standard – Technological Devices  C. Apply basic computer operations and concepts.  - Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  - Apply advanced word processing, database and spreadsheet skills.  - Apply advanced word processing, database and spreadsheet skills.  - Describe and demonstrate how two or more soft—  - VI. Information Technology: Input Technologies: Use input technology.  Explain the purposes, functions, and common features of database software to subtential text and database management system is and for what it is used.  - Apply basic computer operations and concepts.  - Apply advanced word processing, database and aspreadsheet skills.  - Describe and demonstrate how two or more soft—  - VIII zecomputer software to solve specific problems.  - Apply advanced word processing, database and spreadsheet skills.  - Describe and demonstrate how two or more soft—  - VIII zecomputer software to solve specific problems.  - Apply advanced word processing, database and spreadsheet skills.  - Describe and demonstrate how two or more soft—  - VIII zecomputer software to solve specific problems.  - Apply advanced word processing, database and spreadsheet skills.  - Describe and demonstrate how two or more soft—  - VIII zecomputer software to solve specific problems.  - Complete tutorial exercises on Access as review activities  - Assess review activities  - Assessment of critical thinking activities  - Assessment of Capstone Simulation  - Audiovisual Media  - PowerPoint Presentation  - VIII zecomputer software to solve specific problems.  - Valiting records - Selecting records - Selecting records - Vality and a spreadsheet skills.  - Complete tutorial exercises on Access - Vality the parts of the Access screen.  - Complete tutorial	Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
VI. Information Technology: Input Technologies: Use input technologies appropriately to enter and manipulate text and data.  3.7.10  Science and Technology PA State Standard – Technological Devices  C. Apply basic computer operations and concepts.  ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-		National Standards for Busi-	Explain the meaning of common database	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
VI.   Information Technology: Input Technologies: Use input technologies appropriately to enter and manipulate text and data.  3.7.10   Science and Technological Devices   C. Apply basic computer operations and concepts.   Apply touch keyboarding skills and techniques at expectable speed and accuracy.   D. Utilize computer software to solve specific problems.   Apply advanced word processing, database and spreadsheet skills.   Apply advanced word processing, database and spreadsheet skills.   Describe and demonstrate how two or more soft-		ness Education	terminology.	dures and provide feedback.	2007 Introductory, Pasewark
Dut Technologies: Use input technologies appropriately to enter and manipulate text and data.   Science and Technology PA State Standard — Technological Devices   Identify the six types of objects found in a database collection				_	and Pasewark, ©2008, Course
technologies appropriately to enter and manipulate text and data.  3.7.10  Science and Technology PA State Standard – Technological Devices  C. Apply basic computer operations and concepts.  - Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  - Apply advanced word processing, database and spreadsheet skills.  - Apply advanced word processing, database and spreadsheet skills.  - Describe and demonstrate how two or more soft-	VI.	Information Technology: In-	Explain the purposes, functions, and	Assess tutorial exercises	Technology, Cengage Learning
enter and manipulate text and data.  3.7.10  Science and Technology PA State Standard – Technological Devices  C. Apply basic computer operations and concepts.  Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  Apply advanced word processing, database and spreadsheet skills.  D. Utilize computer software to solve specific problems.  Assess application projects  Assessment of critical thinking activities  Assessment of Capstone Simulation  Assessment of Capstone Simulation  Computers/Software  Assessment of Capstone Simulation  Assessment of Capstone Simulation  Computers/Software  Assessment of Capstone Simulation  PowerPoint Presentation  Computers/Software  Assessment of Capstone Simulation  Assessment of Capstone Simula		put Technologies: Use input	common features of database software.		
data.  Science and Technology PA State Standard – Technological Devices  C. Apply basic computer operations and concepts.  ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-		technologies appropriately to		Assess review activities	Instructor's CD-ROM
3.7.10  data.  Science and Technology PA State Standard – Technological Devices  C. Apply basic computer operations and concepts.  ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-		enter and manipulate text and	Explain what a database management sys-		Lesson Plans
Science and Technology PA State Standard — Technological Devices  C. Apply basic computer operations and concepts.  Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  Apply advanced word processing, database and spreadsheet skills.  Apply advanced word processing, database and spreadsheet skills.  Assessment of critical thinking activities  Quizzes and exams  Computers/Software  Assessment of Capstone Simulation  Teacher-prepared workshee  Quizzes and exams  Computers/Software  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Computers/Software  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Complete tutorial exercises on Access basics:  Audiovisual Media PowerPoint Presentation  Complete tutorial exercises on Access basics:  Computers/Software  Audiovisual Media PowerPoint Presentation  Complete tutorial exercises on Access basics:  Computers/Software  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Complete tutorial exercises on Access basics:  Computers/Software  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation of Capstone Simulation  Audiovisual Media PowerPoint Presentation of Capstone Simulation  Audiovisual Media PowerPoint Presentation of Capstone Simulation of Capstone		_	tem is and for what it is used.	Assess application projects	Data files
State Standard — Technological Devices  C. Apply basic computer operations and concepts.  ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft—  State Standard — Technological Devices  Identify the parts of the Access screen.  Identify the purpose of the Navigation Pane.  Assessment of Capstone Simulation  Computers/Software  Audiovisual Media PowerPoint Presentation  Feacher-prepared workshee Computers/Software  Computers/Software  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Complete tutorial exercises on Access and an object Selecting records of Capstone Simulation  Audiovisual Media PowerPoint Presentation Selecting records of Capstone Simulation  Complete tutorial exercises on Access and an object Selecting records of Capstone Simulation  Audiovisual Media PowerPoint Presentation Selection.	3.7.10				Annotated Solutions
State Standard — Technological Devices  C. Apply basic computer operations and concepts.  ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft—  State Standard — Technological Devices  Identify the parts of the Access screen.  Identify the purpose of the Navigation Pane.  Assessment of Capstone Simulation  Computers/Software  Audiovisual Media PowerPoint Presentation  Feacher-prepared workshee Computers/Software  Computers/Software  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Complete tutorial exercises on Access and an object Selecting records of Capstone Simulation  Audiovisual Media PowerPoint Presentation Selecting records of Capstone Simulation  Complete tutorial exercises on Access and an object Selecting records of Capstone Simulation  Audiovisual Media PowerPoint Presentation Selection.		Science and Technology PA	Identify the six types of objects found in a	Assessment of critical thinking	Exam View
Devices  C. Apply basic computer operations and concepts.  Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  Apply advanced word processing, database and spreadsheet skills.  Describe and demonstrate how two or more soft-  Devices  Identify the parts of the Access screen.  Quizzes and exams  Computers/Software  Assessment of Capstone Simulation  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Computers/Software  Assessment of Capstone Simulation  Audiovisual Media PowerPoint Presentation  Computers/Software  Assessment of Capstone Simulation  Audiovisual Media PowerPoint Presentation  Computers/Software				_	
C. Apply basic computer operations and concepts.  Identify the parts of the Access screen.  Identify the purpose of the Navigation Pane.  Identify the purpose of the Navigation Pane.  Assessment of Capstone Simulation  Audiovisual Media PowerPoint Presentation  Computer software to solve specific problems.  Identify the parts of the Access screen.  Identify the purpose of the Navigation Pane.  Computer software to solve specific problems.  Identify the parts of the Access screen.  Quizzes and exams  Computers/Software  Audiovisual Media PowerPoint Presentation  Your PowerPoint Presentation  Selecting records  Your PowerPoint Presentation  Computers/Software  Audiovisual Media PowerPoint Presentation  Your PowerPoint Presentation  Computers/Software  Audiovisual Media PowerPoint Presentation  Computers/Software		<u> </u>			Teacher-prepared worksheets
C. Apply basic computer operations and concepts.  Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  Assessment of Capstone Simulation  Complete tutorial exercises on Access basics:  Starting Access Opening a database and an object  Navigating a datasheet  Editing records Selecting records Selecting records Assessment of Capstone Simulation  Audiovisual Media PowerPoint Presentation  Audiovisual Media PowerPoint Presentation  Computers/Software			Identify the parts of the Access screen.	Quizzes and exams	
erations and concepts.  Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  Apply advanced word processing, database and spreadsheet skills.  Describe and demonstrate how two or more soft-  Describe and demonstrate how two or more soft-  Describe and demonstrate how two or more soft-  Describe and concepts.  Assessment of Capstone Simulation  Audiovisual Media PowerPoint Presentation		C. Apply basic computer op-	*		Computers/Software
Apply touch keyboarding skills and techniques at expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-  Pane.    Lation   Audiovisual Media PowerPoint Presentation			Identify the purpose of the Navigation	Assessment of Capstone Simu-	
<ul> <li>✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.</li> <li>D. Utilize computer software to solve specific problems.</li> <li>✓ Apply advanced word processing, database and spreadsheet skills.</li> <li>✓ Describe and demonstrate how two or more soft-</li> <li>✓ Apply touch keyboarding skills are expectable selections.</li> <li>Complete tutorial exercises on Access basics:         <ul> <li>✓ Starting Access</li> <li>✓ Opening a database and an object</li> <li>✓ Navigating a datasheet</li> <li>✓ Editing records</li> <li>✓ Deleting records</li> <li>✓ Cutting, copying, and pasting data</li> <li>✓ Cutting, copying, and printing a table</li> <li>✓ Saving and Closing Objects</li> </ul> </li> </ul>		1		=	Audiovisual Media
skills and techniques at expectable speed and ac- curacy.  D. Utilize computer software to solve specific problems.  Apply advanced word processing, database and spreadsheet skills.  Describe and demonstrate how two or more soft-  Complete tutorial exercises on Access basics:  V Starting Access V Opening a database and an object V Navigating a datasheet V Selecting records V Selecting records and fields V Deleting records V Cutting, copying, and pasting data V Changing datasheet layout V Previewing and printing a table V Saving and Closing Objects		✓ Apply touch keyboarding			PowerPoint Presentations
expectable speed and accuracy.  D. Utilize computer software to solve specific problems.  Apply advanced word processing, database and spreadsheet skills.  Describe and demonstrate how two or more soft-  basics:  Starting Access  Navigating a database and an object  Navigating a datasheet  Selecting records and fields  Cutting, copying, and pasting data  Changing datasheet layout  Previewing and printing a table  Saving and Closing Objects			Complete tutorial exercises on Access		
curacy.  D. Utilize computer software to solve specific problems.  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-  ✓ Starting Access ✓ Opening a database and an object ✓ Navigating a datasheet ✓ Editing records ✓ Selecting records and fields ✓ Deleting records ✓ Cutting, copying, and pasting data ✓ Changing datasheet layout ✓ Previewing and printing a table ✓ Saving and Closing Objects		expectable speed and ac-			
<ul> <li>D. Utilize computer software to solve specific problems.</li> <li>✓ Apply advanced word processing, database and spreadsheet skills.</li> <li>✓ Describe and demonstrate how two or more soft-</li> <li>✓ Opening a database and object</li> <li>✓ Navigating a datasheet</li> <li>✓ Editing records</li> <li>✓ Selecting records and fields</li> <li>✓ Deleting records</li> <li>✓ Cutting, copying, and pasting data</li> <li>✓ Changing datasheet layout</li> <li>✓ Previewing and printing a table</li> <li>✓ Saving and Closing Objects</li> </ul>		1 -	✓ Starting Access		
to solve specific problems.  ✓ Editing records  ✓ Selecting records and fields  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-  ✓ Editing records  ✓ Selecting records  ✓ Deleting records  ✓ Cutting, copying, and pasting data  ✓ Changing datasheet layout  ✓ Previewing and printing a table  ✓ Saving and Closing Objects		,	✓ Opening a database and an object		
to solve specific problems.  ✓ Editing records  ✓ Selecting records and fields  ✓ Apply advanced word processing, database and spreadsheet skills.  ✓ Describe and demonstrate how two or more soft-  ✓ Editing records  ✓ Selecting records  ✓ Deleting records  ✓ Cutting, copying, and pasting data  ✓ Changing datasheet layout  ✓ Previewing and printing a table  ✓ Saving and Closing Objects		D. Utilize computer software	✓ Navigating a datasheet		
✓ Apply advanced word processing, database and spreadsheet skills. ✓ Describe and demonstrate how two or more soft- ✓ Selecting records and fields ✓ Deleting records ✓ Cutting, copying, and pasting data ✓ Changing datasheet layout ✓ Previewing and printing a table ✓ Saving and Closing Objects					
<ul> <li>✓ Apply advanced word processing, database and spreadsheet skills.</li> <li>✓ Describe and demonstrate how two or more soft-</li> <li>✓ Apply advanced word processing, database and cutting, copying, and pasting data</li> <li>✓ Cutting, copying, and pasting data</li> <li>✓ Changing datasheet layout</li> <li>✓ Previewing and printing a table</li> <li>✓ Saving and Closing Objects</li> </ul>					
processing, database and spreadsheet skills.  ✓ Cutting, copying, and pasting data ✓ Changing datasheet layout ✓ Describe and demonstrate how two or more soft-  ✓ Saving and Closing Objects		✓ Apply advanced word			
spreadsheet skills.  ✓ Changing datasheet layout ✓ Describe and demonstrate how two or more soft-  ✓ Changing datasheet layout ✓ Previewing and printing a table ✓ Saving and Closing Objects			✓ Cutting, copying, and pasting data		
✓ Describe and demonstrate how two or more soft- ✓ Previewing and printing a table ✓ Saving and Closing Objects		1 2			
how two or more soft- ✓ Saving and Closing Objects					
		how two or more soft-			
ware applications can be ✓ Compacting and Repairing a Database		ware applications can be	✓ Compacting and Repairing a Database		
used to produce an out- ✓ Closing and Exiting Access		1			
put.		1			
✓ Select and apply software Complete database applications using ap-			Complete database applications using ap-		
designed to meet specific plied skills. Use problem-solving, deci-					
needs. sion-making and critical thinking skills to		1			
resolve problems in order to master the					

	 33
application.  ✓ Open, edit, print, and close datasheets.  ✓ Format datasheet by changing row height, column width, column locations and background color, by moving fields, freezing columns, and resizing	
Transfer knowledge of features to various document production assignments throughout the course.  ✓ Complete a capstone simulation integrating and applying all skills learned.	

Course Name:	Professional Computer Applications		
Content:	Creating a Database		
Key Learning(s):	<ul> <li>✓ The first step in creating a database is to create the file that will store the database objects.</li> <li>✓ To create a database, you can use an Access template with objects or use a Blank Database Template with no objects in it.</li> </ul>		
Essential Question(s):	<ul><li>✓ What is the first step in creating a database?</li><li>✓ What can you use to create a database?</li></ul>		
Vocabulary:	Alphanumeric Data AutoNumber Blank Database Template Data Type Default Value Property Description Property Design Grid Design View Field Properties Pane Field Property Field Size Property Format Property Primary Key Required Property Template		
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>		

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Give examples of simple databases.	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Identify icons and screens used in creating		and Pasewark, ©2008, Course
VI.	Information Technology: In-	a database.	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input			
	technologies appropriately to	Match data types to their descriptions.	Assess review activities	Instructor's CD-ROM
	enter and manipulate text and			Lesson Plans

3.7.10

data.

Science and Technology PA State Standard – Technological Devices

- C. Apply basic computer operations and concepts.
  - ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - Select and apply software designed to meet specific needs.

Discuss when to use an Access database template and a Blank Database template.

Discuss data types and possible way to use all 11 data types.

Discuss what types of properties are used in various on-line forms.

# Complete tutorial exercises on creating databases.

- ✓ Creating a database
- ✓ Creating and saving a table
- ✓ Designing a table
- ✓ Setting a field's data type.
- ✓ Working in design view
- ✓ Setting and changing field properties in design view

Complete database applications using applied skills.

Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the application.

- ✓ Create and design a table with personal or classroom contact information.
- ✓ Research how to use an input mask.

Transfer knowledge of features to various document production assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Assess application projects

Assessment of critical thinking activities

Quizzes and exams

Assessment of Capstone Simulation

Data files Annotated Solutions Exam View

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations

Course Name:	Professional Computer Applications			
Content:	Creating Queries			
Key Learning(s):	<ul> <li>✓ A query is a database object that lets the user ask the database about the data it contains.</li> <li>✓ A condition is a way of telling the query which data the user is interested in seeing such as for a certain date or Zip code.</li> <li>✓ Queries are based on tables.</li> </ul>			
Essential Question(s):	<ul> <li>✓ What is a query?</li> <li>✓ How are conditions or criterion used with a query?</li> <li>✓ On what are queries based?</li> </ul>			
Vocabulary:	Condition Matching Field Referential Integrity Common Field	Criteria Or Operator Relationship Expression	Detail Query Primary Table Foreign Key Calculated Field	Filter Query Join Line Run
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>			

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Discuss ways Access could be used at	Observe techniques and proce-	Textbook: Microsoft Office
	ness Education	home, work, and school.	dures and provide feedback.	2007 Introductory, Pasewark
				and Pasewark , ©2008, Course
VI.	Information Technology: In-	Complete tutorial exercises on creating	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	<mark>queries.</mark>		
	technologies appropriately to	✓ Creating a query using a Wizard	Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	✓ Sorting and filtering data in a datasheet		Lesson Plans
	data.	✓ Creating a query in Design view	Assess application projects	Data files
3.7.10		✓ Creating relationships in a database		Annotated Solutions
	Science and Technology PA	✓ Creating a table based on more than	Assessment of critical thinking	Exam View
	State Standard – Technological	one table	activities	
	Devices	✓ Using operators in a condition in a		Teacher-prepared worksheets
		query	Quizzes and exams	
	C. Apply basic computer op-	✓ Calculating data using a query		Computers/Software
	erations and concepts.		Assessment of Capstone Simu-	
		Complete query and relationships applica-	lation	Audiovisual Media
	✓ Apply touch keyboarding	tion projects using applied skills.		PowerPoint Presentations
	skills and techniques at			
	expectable speed and ac-	Use problem-solving, decision-making		
	curacy.	and critical thinking skills to resolve prob-		
		lems in order to master the application.		
	D. Utilize computer software	✓ Create a query to locate prospective		
	to solve specific problems.	homes for clients of a realtor.		
		✓ Use the Help system to research Refe-		
	✓ Apply advanced word	rential Integrity.		
	processing, database and	✓ Explore and use the Find Unmatched		
	spreadsheet skills.	Query Wizard.		
	✓ Describe and demonstrate			
	how two or more soft-	Transfer knowledge of features to various		
	ware applications can be	document production assignments		
	used to produce an out-	throughout the course.		
	put.	✓ Complete a capstone simulation inte-		
	✓ Select and apply software	grating and applying all skills learned.		
	designed to meet specific			
	needs.			

Course Name:	Professional Computer Applications			
Content:	Creating & Modifying Forms			
Key Learning(s):	<ul> <li>✓ A form is a database object that displays data from one or more tables or queries in a format that has a similar appearance to a paper form.</li> <li>✓ A record source is the tables or queries containing the data used in a form.</li> <li>✓ Tools used in Access to create forms are Form Tool, Split Form Tool, Multiple Item Tool, and Form Wizard.</li> </ul>			
Essential Question(s):	<ul> <li>✓ What is a form?</li> <li>✓ What is a record source?</li> <li>✓ What are types of tools used to create forms?</li> </ul>			
Vocabulary:	Control Detail Section Split Form Tool	Find Field List Pane Unbound Control	Form Record Source Form View	Control Bound Control Layout View
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>			

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Explain how a form is used in a database.	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Discuss the advantages of using Access		and Pasewark, ©2008, Course
VI.	Information Technology: In-	forms for data.	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input			
	technologies appropriately to	Identify the various types of Form tools	Assess review activities	Instructor's CD-ROM

enter and manipulate text and and describe their uses. Lesson Plans Assess application projects Data files data. **Annotated Solutions** 3.7.10 Complete tutorial exercises on Access Science and Technology PA basics: Assessment of critical thinking Exam View State Standard – Technological ✓ Creating a Form using different form activities Devices Teacher-prepared worksheets ✓ Creating a form using the Form Wizard Quizzes and exams ✓ Navigating records using a form C. Apply basic computer op-Computers/Software ✓ Using a form to find and replace data erations and concepts. Assessment of Capstone Simu-✓ Using a form to update and delete data Audiovisual Media lation ✓ Apply touch keyboarding ✓ Creating and modifying a form in PowerPoint Presentations skills and techniques at Lavout View ✓ Resizing and Moving controls in a form expectable speed and ac-✓ Adding an unbound control to a form in curacy. design view ✓ Previewing and printing a form. D. Utilize computer software to solve specific problems. Complete database applications projects ✓ Apply advanced word creating forms. processing, database and Use problem-solving, decision-making spreadsheet skills. ✓ Describe and demonstrate and critical thinking skills to resolve problems in order to master the application. how two or more soft-✓ Design a form to register for classes ware applications can be used to produce an outthat includes both bound and unbound controls. put. ✓ Select and apply software ✓ Brainstorm situations where a principal designed to meet specific of a school would want to create a form in Layout View. needs. Transfer knowledge of features to various document production assignments throughout the course. ✓ Complete a capstone simulation inte-

grating and applying all skills learned.

Course Name:	Professional Computer Applications		
Content:	Creating and Modifying Reports		
Key Learning(s):	<ul> <li>✓ A report is a database object that display data from one or more tables or queries in a form that has an appearance similar to a printed report.</li> <li>✓ Reports can be used to create formatted lists of information or to summarize information in different ways, or to print form letters and mailing labels.</li> <li>✓ The report tool creates a simple report that includes all the fields in the selected table or query, uses a simple columnar format, and includes a title with the same name as the record source.</li> </ul>		
Essential Question(s):	<ul> <li>✓ What is a report?</li> <li>✓ What are some ways to use reports?</li> <li>✓ What does the Report tool do?</li> </ul>		
Vocabulary:	Grouping Level Print Preview Report Selector	Label Wizard Read Only Report Tool	Line Tool Report Report Wizard
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>		

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Discuss the purpose of using reports.	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Discuss what type of report would be		and Pasewark, ©2008, Course
VI.	Information Technology: In-	used in managing the business of a rock	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	band.		
	technologies appropriately to		Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	Brainstorm ways to use labels in daily		Lesson Plans
	data.	home and school life.	Assess application projects	Data files
3.7.10				Annotated Solutions
	Science and Technology PA	Name situations when adding a picture to	Assessment of critical thinking	Exam View
	State Standard – Technological	a report would be helpful.	activities	
	Devices			Teacher-prepared worksheets
		Complete tutorial exercises on creating	Quizzes and exams	
	C. Apply basic computer op-	and modifying reports.		Computers/Software
	erations and concepts.	✓ Creating a report using the Report tool	Assessment of Capstone Simu-	
		✓ Creating a report using the Label	lation	Audiovisual Media
	✓ Apply touch keyboarding	Wizard		PowerPoint Presentations
	skills and techniques at	✓ Creating a report using the Report		
	expectable speed and ac-	Wizard		
	curacy.	✓ Modifying a report in Layout view.		
		✓ Modify a report in Design view.		
	D. Utilize computer software to solve specific problems.	✓ Adding line, labels, and pictures to a report.		
	1	✓ Moving a control in a report.		
	✓ Apply advanced word	✓ Setting a report's properties.		
	processing, database and			
	spreadsheet skills.	Complete database applications projects		
	-	creating and modifying reports.		
	✓ Describe and demonstrate			
	how two or more soft-	Use problem-solving, decision-making		
	ware applications can be	and critical thinking skills to resolve prob-		
	used to produce an out-	lems in order to master the application.		
	put.	✓ Modify a database to change how the		
		label control prints.		
	✓ Select and apply software	✓ Create a record source and print labels		
	designed to meet specific	for personal use.		

needs.		
	Transfer knowledge of features to various document production assignments throughout the course.	
	✓ Complete a capstone simulation integrating and applying all skills learned.	

Course Name:	Professional Computer Applications		
Content:	Integrating Access		
Key Learning(s):	<ul> <li>✓ When database data is saved in another file format, it is called exporting; when data is added that is stored in a different file format, it is called importing.</li> <li>✓ A form letter is a document that includes codes that print information from a data source.</li> </ul>		
Essential Question(s):	<ul> <li>✓ What is the difference between importing and exporting data?</li> <li>✓ What is a form letter?</li> </ul>		
Vocabulary:	Comma-Separated Values Delimiter Import	Data Source Export Main document	Delimited Data Form Letter Merge Field
Grade Level:	9 <sup>th</sup> - 12 <sup>th</sup>		

Number	Standard/Benchmark	Student Learning Experiences	Procedures for Assessment	Resources
	National Standards for Busi-	Compare importing and exporting data.	Observe techniques and proce-	<b>Textbook:</b> Microsoft Office
	ness Education		dures and provide feedback.	2007 Introductory, Pasewark
		Discuss circumstances when it would be		and Pasewark , ©2008, Course
VI.	Information Technology: In-	necessary to export a database to an	Assess tutorial exercises	Technology, Cengage Learning
	put Technologies: Use input	HTML (web page) format.		
	technologies appropriately to		Assess review activities	Instructor's CD-ROM
	enter and manipulate text and	Discuss what a form letter would look		Lesson Plans
	data.	like to announce the birth of a new animal	Assess application projects	Data files

3.7.10	Science and Technology PA State Standard – Technological Devices
	C. Apply basic computer operations and concepts.

- ✓ Apply touch keyboarding skills and techniques at expectable speed and accuracy.
- D. Utilize computer software to solve specific problems.
  - ✓ Apply advanced word processing, database and spreadsheet skills.
  - ✓ Describe and demonstrate how two or more software applications can be used to produce an output.
  - ✓ Select and apply software designed to meet specific needs.

at the zoo. Decided what types of filters would be needed regarding the recipient list.

# Complete tutorial exercises on integrating Access.

- ✓ Importing data from other Office programs
- ✓ Exporting data from a database to other Office programs.
- ✓ Creating form letters.
- ✓ Merging a form letter with a data source.
- ✓ Editing a data source to print specific form letters.

Complete database applications projects integrating various data from other Office software programs using applied skills.

Use problem-solving, decision-making and critical thinking skills to resolve problems in order to master the application.

- ✓ Use the Help system to learn how to merge records from a data source with e-mail messages.
- ✓ Create a database, import data, and create two new tables then export data to an Excel workbook.

Transfer knowledge of features to various document production assignments throughout the course.

✓ Complete a capstone simulation integrating and applying all skills learned.

Assessment of critical thinking activities

Quizzes and exams

Assessment of Capstone Simulation

Annotated Solutions Exam View

Teacher-prepared worksheets

Computers/Software

Audiovisual Media PowerPoint Presentations