

WARREN TOWNSHIP SCHOOLS

COMPUTER APPLICATIONS CURRICULUM Technological Literacy GRADE 8



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Computer Applications Philosophy Statement

We believe that by providing an environment that stimulates enthusiasm for learning, students will develop a conceptual understanding of scientific and mathematic principles, establish proficiency with technological systems, and become creative and innovative problem solvers.

Our curriculum framework is aligned with the following:

- New Jersey Core Curriculum Content Standards for Technology
www13.state.nj.us/NJCCCS/ContentAreaView_Technology.aspx
- New Jersey Core Curriculum Content Standards for Science
https://www13.state.nj.us/NJCCCS/ContentAreaView_Science.aspx
- New Jersey Core Curriculum Content Standards for 21st Century Life and Careers
www13.state.nj.us/NJCCCS/ContentAreaView_21st.aspx
- Common Core State Standards for Mathematics
<http://www.corestandards.org/the-standards/mathematics>

Additional Resources include:

- National Science Education Standards (NSES) www.nap.edu
- International Technology and Engineering Educators Association (ITEEA) www.iteea.org
- International Society for Technology in Education Student Standards (ISTE) www.iste.org
- The National Math and Science Initiative (STEM) www.nationalmathandscience.org/STEM

COMPUTER APPLICATIONS COURSE PLAN

UNITS OF STUDY

Computer Applications

- Unit Overview
- Learning Goals
- Essential Question
- Unit Template (If Applicable)
- Unit Assessment Rubric (If Applicable)

DAYS		DESCRIPTION
	Objective	
1	Course Overview	Classroom Rules Computer Care Daily Keyboarding Requirements Course Project Overview Required Applications Project Requirements Procedures
2-3	Microsoft Word	Business Plan
4-7	Microsoft Access	Databases
8-11	Adobe Photoshop	Graphic Design
12-15	Desktop Publishing	Marketing Flyer
16-19	Microsoft Excel	Analyzing Data
20-25	Microsoft PowerPoint	Presenting Your Results

GRADE SCALES

A+	97-100
A	94-96
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	65-60
F	0-59

INTRODUCTORY UNIT - Course Overview

SUMMARY OF UNIT

The course introduction will review Classroom rules and procedures, and overview of the content of the course and grading policy. This introduction will also introduce students to the Mavis Beacon typing program that students are required to use daily.

LEARNING GOALS

Students will:

1. Learn to follow class rules and procedures.
2. Develop the correct touch typing technique.
3. Key accurately, at a rate of 35 words per minute with 90% accuracy.

ESSENTIAL QUESTION

Why is it important to look at the screen while typing?

Define the term, touch typist.

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

INTRODUCTORY UNIT – Overview

DAY	OBJECTIVE	PROCEDURE
1	Course Introduction	Teacher will review/describe: 1. Classroom rules, etiquette and procedures. 2. Daily Keyboarding Requirements/Expectations Students will type at 30 words per minute with 90% accuracy 3. Teacher will describe: a. Required Applications b. Project Requirements

WARREN TOWNSHIP SCHOOLS
Computer Applications
Lesson Plan

GRADE: 8

UNIT: Introduction to Course

DAY: 1

STANDARDS:

8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

OBJECTIVE:

1. The learner will learn to follow class rules and procedures.
2. The learner will develop the correct touch typing technique.
3. The learner will key accurately, at a rate of 30 words per minute with 90% accuracy.

PROCEDURE:

1. Students will listen to review classroom rules, etiquette and procedures.
2. Students will type at 30 words per minute with 90% accuracy.
3. Students will be exposed to required applications and project expectations.

EVALUATION:

1. Teacher will monitor student progress through the UltraKey Teacher Management Module.

UNIT 1 – Business Plan (Microsoft Word)

SUMMARY OF UNIT

In this unit, students will compose a document in Microsoft Word. Students will review some basic functions in Word such as changing fonts, alignment of text and tab stops.

LEARNING GOALS

Students will:

1. Compose a document using Microsoft Word.
2. Start Word and understand the ways to view a document.
3. Open and save a document to a network drive.
4. Enter text in a document and navigate a document.
5. Change the font face, font size, font color, and style.
6. Change the alignment of text to left, right or center.
7. Set tabs stops.
8. Insert a table.
9. Create a table of contents using heading styles.

ESSENTIAL QUESTIONS

What term is used to describe a blinking cursor?

What are the benefits to using a Word Processing program to write a document?

Why are the font face, size, and style important to the readability of a document?

How do you correctly center text in a page?

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

Standard 8.1.8.A.1 Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.

Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

Standard 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

Computer Applications – Business Plan – Overview

DAYS	OBJECTIVE	PROCEDURE
2-3	Creation of Business Plan	<p>Teacher will review/describe:</p> <ol style="list-style-type: none"> 1. Composing a document using Microsoft Word. 2. Essentials of Creating a Business Plan. 3. <p>Students will create Business Plan:</p> <ol style="list-style-type: none"> 1. Compose a document using Microsoft Word. 2. Compare personal product to the essentials of the rubric for evaluation. <p>Students will use Microsoft Word to:</p> <ol style="list-style-type: none"> 1. Enter text in a document. 2. Save a document to the H drive. 3. Open a document. 4. Change the font. 5. Change the size, color, and style of text. 6. Copy formatting using the Format Painter. 7. Set the margins of a document. 8. Align text and adjust paragraph indents. 9. Set and modify tab stops. 10. Insert a table. 11. Create a table contents

WARREN TOWNSHIP SCHOOLS
Computer Applications
Lesson Plans

GRADE: 8

UNIT: Business Plan - Microsoft Word Basics

DAYS: 2-3

STANDARDS:

8.1.8.A.1 Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.

8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

OBJECTIVE:

The learner will develop the correct touch typing technique.

The learner will key accurately, at a rate of 30 words per minute with 90% accuracy.

The learner will Students will open Microsoft Word.

The learner will enter text in a document.

The learner will save a document to the H drive.

The learner will open a document.

The learner will change the font.

The learner will change the size, color, and style of text.

The learner will copy formatting using the Format Painter.

The learner will set the margins of a document.

The learner will align text and adjust paragraph indents.

The learner will set and modify tab stops.

The learner will insert and format a table.

The learner will create a table of contents using heading styles.

PROCEDURE:

1. Teacher will introduce the concept of a business plan by showing an example to the students. Teacher will explain the components of a business as well as the project's requirements.
2. Students will download an outline of a business plan from the student center. The file will be in PDF format.
3. Student will download the Business Plan Rubric.
4. In collaborative groups, students will write a business plan in Microsoft Word.
5. Once completed, the business plan will be uploaded to the dropbox.

EVALUATION:

1. Students will compose a business plan in Microsoft Word. (See Rubric.)

**Warren Middle School
Grade 8 – Computer Applications
Business Plan Rubric**

**Application: Word Processing
Software: Microsoft Word**

SKILL	1 (BEGINNING)	2 (DEVELOPING)	3 (ACCOMPLISHED)	4 (EXEMPLARY)
ENTERS, MANIPULATES AND FORMATS TEXT ACCURATELY & EFFECTIVELY	Makes critical errors when entering, manipulating and formatting text.	Makes significant errors when entering, manipulating and formatting text.	Enters, manipulates and formats text without significant error.	Demonstrates a high level of skill when entering, manipulating, and formatting text.
FORMATS PAGES ACCURATELY & EFFECTIVELY	Makes critical errors when formatting pages.	Makes significant errors when formatting pages.	Formats pages without significant error.	Demonstrates a high level of skill when formatting pages.
USES EMBEDDED TOOLS ACCURATELY & EFFECTIVELY	Makes critical errors when using embedded tools.	Makes significant errors when using embedded tools.	Uses embedded tools without significant error.	Demonstrates a high level of skill when using embedded tools.
USING/INSERTING OBJECTS/PICTURES EFFECTIVELY	Makes critical errors when inserting objects/pictures from other programs and only one was used.	Makes significant errors when inserting objects/pictures from other programs, more than one was used.	Inserts objects/pictures from other programs without significant error and edited using layer styles, filters or cropping .	Demonstrates a high level of skill when inserting objects/pictures from other programs and edited same using layer styles, filters or cropping.
USES EDITING TOOLS EFFECTIVELY	Makes critical errors when using editing tools.	Makes significant errors when using editing tools.	Uses embedded tools without editing error.	Demonstrates a high level of skill when using editing tools.
OVERALL LAYOUT OF DOCUMENT	Makes critical errors when laying out document in its overall look and feel.	Makes significant errors when laying out document in its overall look and feel.	Demonstrates a satisfactory level of skill when laying out document in its overall look and feel.	Demonstrates a high level of skill when laying out document in its overall look and feel.
COLLABORATION	Student did not work well in group, contributed or nothing to group tasks.	Student did not work well in group, contributed little to group tasks.	Student worked in the group setting, contributed only what was necessary to group tasks.	Student worked well in the group setting, contributed to the group in a positive, effective manner.
TOTALS				
STRENGTHS:				
SUGGESTIONS:				
Grand Total:				
STUDENT NAME:				
SECTION:			DATE:	

UNIT 2 – Databases (Microsoft Access)

SUMMARY OF UNIT

In this unit, students will create a database using Microsoft Access that contains tables and fields with multiple field types.

LEARNING GOALS

Students will:

1. Understand databases and database terminology.
2. Create a database in Microsoft Access.
3. Design, create, and save a table in Design View.
4. Set a field's data type and name in Design View
5. Recognize the difference between a text, date/time, and number field types.

ESSENTIAL QUESTION

What steps do you take to create a new database?

How do you create a field in a table in Design View?

How do you set fields data type in Design View?

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

Standard 8.1.8.A.2 Plan and create a simple database, define fields, input data, and produce a report using sort and query.

Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

Standard 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.

Standard 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

Computer Applications – Microsoft Access – Overview

DAYS	OBJECTIVE	PROCEDURE
4-7	Create a Database in Microsoft Access	<ol style="list-style-type: none">1. Students will open Microsoft Access.2. Create a database.3. Design, create, and save a table in Datasheet view.4. Set a field's data type and name in Datasheet view.5. Add, delete, rename, and move fields in Design View.6. Set field properties in Design view.

WARREN TOWNSHIP SCHOOLS

Microsoft Access

Lesson Plans

GRADE: 8

UNIT: Microsoft Access

DAY: 4-7

STANDARDS:

- 8.1.8.A.1 Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.
- 8.1.8.A.2 Plan and create a simple database, define fields, input data, and produce a report using sort and query.
- 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.
- 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

OBJECTIVE:

- The learner will develop the correct touch typing technique.
- The learner will key accurately, at a rate of 30 words per minute with 90% accuracy.
- The learner will open Microsoft Access.
- The learner will create a database.
- The learner will design, create, and save a table in Datasheet view.
- The learner will set a field's data type and name in Datasheet view.
- The learner will add, delete, rename, and move fields in Design View.
- The learner will set field properties in Design view.

PROCEDURE:

1. Teacher will explain the concept of a database and prompt students for real life uses for a database.
2. Teacher will demonstrate how to build a database by creating tables, fields, and data types.
3. Students will create a database using Microsoft Access.

EVALUATION:

Student will be assessed using the Inventory Database Rubric (See rubric)

**Warren Middle School
Grade 8 – Computer Applications
Business Project Database Rubric**

**Application: Database
Software: Microsoft Access**

SKILL	1 (BEGINNING)	2 (DEVELOPING)	3 (ACCOMPLISHED)	4 (EXEMPLARY)
INVENTORY TABLE	Table is created but some fields are missing	Table is created but some fields are missing and data types are not correct	Table is created with the correct fields but some of the data types are not correct.	Table is created with the correct field names and data types.
PURCHASES TABLE	Table is created but some fields are missing	Table is created but some fields are missing and data types are not correct	Table is created with the correct fields but some of the data types are not correct.	Table is created with the correct field names and data types.
INSERTING TEXT	Text is missing or not in the correct format	Most text is missing or not in the correct format	Some text is missing but in the correct format	All text is entered correctly and in the correct format
COLLABORATION	Student did not work well in group, contributed or nothing to group tasks.	Student did not work well in group, contributed little to group tasks.	Student worked in the group setting, contributed only what was necessary to group tasks.	Student worked well in the group setting, contributed to the group in a positive, effective manner.
TOTALS				
STRENGTHS:				
SUGGESTIONS:				
Grand Total:				
STUDENT NAME:				
SECTION:			DATE:	

UNIT 3 – Graphic Design (Adobe Photoshop)

SUMMARY OF UNIT

In this unit, students will create a graphics using Adobe Photoshop and save the files using an appropriate file format for a website.

LEARNING GOALS

Students will:

- Create a new picture using Adobe Photoshop.
- Specify the width and height of a picture in pixels.
- Use the shape tool to add shapes
- Change the look of an object using layer styles.
- Differentiate between a PNG (portable network graphic) and a JPG (JPEG - Joint Photographic Experts Group)
- Choose the correct format when saving an image to the web.

ESSENTIAL QUESTION

- How do you begin a new picture in Adobe Photoshop?
- How do you add a shape to a picture?
- How do you determine the best file format for a picture?

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

- Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- Standard 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.
- Standard 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

- Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

Computer Applications – Graphic Design/Adobe Photoshop – Overview

DAYS	OBJECTIVE	PROCEDURE
8-11	Create a graphic in Adobe Photoshop	<ol style="list-style-type: none"> 1. Students will open Adobe Photoshop. 2. Students will create a new picture that is 960 pixels wide by 150 pixels high. 3. Students will save their picture to the H: drive as a .PSD. 4. Students will create a rectangle using the shape tool. 5. Students will add layer styles, including a stroke, gradient or color overlay. 6. Students will enter the name of their store using the text tool. 7. Students will use layer style for ornamentation. The style could include a stroke, color overlay, gradient overlay, drop shadow or other attribute. 8. Students will copy and paste pictures from the Internet into Adobe Photoshop. 9. Students will use the marquee tool to select regions of the picture they wish to use and cut out that section. Students will then paste the sections back into the picture. 10. Students will then save the picture as a .JPG, .GIF, or PNG.

WARREN TOWNSHIP SCHOOLS
Adobe Photoshop
Lesson Plans

GRADE: 8

UNIT: Graphic Design

DAY: 4-7

STANDARDS:

- 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.

OBJECTIVE:

- The learner will create a new picture using Adobe Photoshop.
- The learner will specify the width and height of a picture in pixels.
- The learner will use the shape tool to add shapes
- The learner will change the look of an object using layer styles.
- The learner will differentiate between a PNG (portable network graphic) and a JPG (JPEG - Joint Photographic Experts Group)
- The learner will choose the correct format when saving an image to the web.

PROCEDURE:

- Students will open Adobe Photoshop.
- Students will create a new picture that is 960 pixels wide by 150 pixels high.
- Students will save their picture to the H: drive as a .PSD.
- Students will create a rectangle using the shape tool.
- Students will add layer styles, including a stroke, gradient or color overlay.
- Students will enter the name of their store using the text tool.
- Students will use layer style for ornamentation. The style could include a stroke, color overlay, gradient overlay, drop shadow or other attribute.
- Students will copy and paste pictures from the Internet into Adobe Photoshop.
- Students will use the marquee tool to select regions of the picture they wish to use and cut out that section. Students will then paste the sections back into the picture.
- Students will then save the picture as a .JPG, .GIF, or .PNG.

EVALUATION:

- Student will be assessed using the Web Graphic Rubric (See rubric)

**Warren Middle School
Grade 8 – Computer Applications
Web Graphic Rubric**

Application: Graphics Editing Program
Software: Adobe Photoshop

SKILL	1 (BEGINNING)	2 (DEVELOPING)	3 (ACCOMPLISHED)	4 (EXEMPLARY)
INSERT & FORMAT TEXT	Inserted text	Inserted text and changed the font face	Inserted text and changed the font face and font size	Inserted text and changed the font face, font size, and font style (bold, italicized, underlined)
MOVE TOOL	Text and object is in the default position	Text or object was moved but the scale remained the same	Text or object was moved and the scale was changed	Text or object was moved, the scale was changed, and the text or object was rotated
LAYER STYLES	One to seven layer styles were used with the default settings (No customization of layer styles)	Eight to twelve layer styles were used with the default settings (No customization of layer styles)	Four to seven layer styles were used and changed from their default settings	Eight to twelve layer styles were used and changed from their default settings
SHAPES	One or more shapes were used with one to seven layer styles with the default settings	One or more shapes were used with eight to twelve layer styles with the default settings	One or more shapes were used with four to seven layer styles used and changed from their default settings	One or more shapes were used with eight to twelve layer styles that were changed from their default settings
PICTURES	One picture was used	More than one picture was used	One picture was used and edited using layer styles, filters or cropping.	One or more pictures were used and edited using layer styles, filters or cropping.
MOVING LAYERS	Objects are placed in an illogical order	Objects are placed in an illogical order. However some objects can viewed by the user	Objects are placed in a manner that some objects can viewed by the user	Objects are placed in an order that is logical and in a manner that all objects can viewed by the user
COLLABORATION	Student did not work well in group, contributed or nothing to group tasks.	Student did not work well in group, contributed little to group tasks.	Student worked in the group setting, contributed only what was necessary to group tasks.	Student worked well in the group setting, contributed to the group in a positive, effective manner.
TOTALS				
STRENGTHS:				
SUGGESTIONS:				
Grand Total:				
STUDENT NAME:				
SECTION:			DATE:	

UNIT 4 – Desktop Publishing: Marketing Flyer (Adobe Photoshop)

SUMMARY OF UNIT

Student will create a sales flyer in Adobe Photoshop that includes 5 items from their website. The flyer will include a description of the item, a picture and the price of the item.

LEARNING GOALS

Students will:

1. Create a new picture using Adobe Photoshop.
2. Specify the width and height of a picture in pixels.
3. Use the shape tool to add shapes
4. Change the look of an object using layer styles.
5. Manipulate layers
6. Import photographs into Photoshop
7. Demonstrate a basic understanding of color theory

ESSENTIAL QUESTION

What layer style can be used to enhance the look of an object?

What is the eye line and why is it important when creating a publication that includes images?

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.

Standard 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

Computer Applications – Desktop Publishing – Overview

DAYS	OBJECTIVE	PROCEDURE
12-15	Create a graphic in Adobe Photoshop	<ol style="list-style-type: none"> 1. Students will open Adobe Photoshop. 2. Students will create a new picture that is 8.5 inches wide by 11 inches high. 3. Students will save their picture to the H: drive as a .PSD. 4. Students will create a rectangular background using the shape tool. 5. Students will add layer styles, including a gradient or color overlay for the background of the flyer. 6. Students will enter any text by using the text tool. 7. Students will use layer style for ornamentation. The style could include a stroke, color overlay, gradient overlay, drop shadow or other attribute. 8. Students will copy and paste pictures of the items they used in their store from the Internet into Adobe Photoshop. 9. Students will use the marquee tool to select regions of the picture they wish to use and cut out that section. Students will then paste the sections back into the picture. 10. Once completed, students will print out their flyer.

WARREN TOWNSHIP SCHOOLS

Microsoft Excel

Lesson Plans

GRADE: 8

UNIT: Marketing Flyer

DAYS: 12-15

STANDARDS:

- 8.1.8.A.1 Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.
- 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.
- 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

OBJECTIVE:

1. The learner will create a new picture using Adobe Photoshop.
2. The learner will specify the width and height of a picture in pixels.
3. The learner will use the shape tool to add shapes
4. The learner will change the look of an object using layer styles.
5. The learner will manipulate layers
6. The learner will import photographs into Photoshop
7. The learner will demonstrate a basic understanding of color theory

PROCEDURE:

Students will open Adobe Photoshop.

Students will create a new picture that is 8.5 inches wide by 11 inches high.

Students will save their picture to the H: drive as a .PSD.

Students will create a rectangular background using the shape tool.

Students will add layer styles, including a gradient or color overlay for the background of the flyer.

Students will enter any text by using the text tool.

Students will use layer style for ornamentation. The style could include a stroke, color overlay, gradient overlay, drop shadow or other attribute.

Students will copy and paste pictures of the items they used in their store from the Internet into Adobe Photoshop.

Students will use the marquee tool to select regions of the picture they wish to use and cut out that section. Students will then paste the sections back into the picture.

Once completed, students will print out their flyer.

EVALUATION:

Student will be assessed using the Marketing Flyer Rubric

**Warren Middle School
Grade 8 – Technological Literacy
Marketing Flyer Rubric**

Application: Graphics Editing Program
Software: Photoshop

SKILL	1 (BEGINNING)	2 (DEVELOPING)	3 (ACCOMPLISHED)	4 (EXEMPLARY)
INSERT & FORMAT TEXT	Inserted text	Inserted text and changed the font face	Inserted text and changed the font face and font size	Inserted text and changed the font face, font size, and font style (bold, italicized, underlined)
MOVE TOOL	Text and object is in the default position	Text or object was moved but the scale remained the same	Text or object was moved and the scale was changed	Text or object was moved, the scale was changed, and the text or object was rotated
LAYER STYLES	One to seven layer styles were used with the default settings (No customization of layer styles)	Eight to twelve layer styles were used with the default settings (No customization of layer styles)	Four to seven layer styles were used and changed from their default settings	Eight to twelve layer styles were used and changed from their default settings
SHAPES	One or more shapes were used with one to seven layer styles with the default settings	One or more shapes were used with eight to twelve layer styles with the default settings	One or more shapes were used with four to seven layer styles used and changed from their default settings	One or more shapes were used with eight to twelve layer styles that were changed from their default settings
PICTURES	One picture was used	More than one picture was used	One picture was used and edited using layer styles, filters or cropping.	One or more pictures were used and edited using layer styles, filters or cropping.
MOVING LAYERS	Objects are placed in an illogical order	Objects are placed in an illogical order. However some objects can viewed by the user	Objects are placed in a manner that some objects can viewed by the user	Objects are placed in an order that is logical and in a manner that all objects can viewed by the user
COLLABORATION	Student did not work well in group, contributed or nothing to group tasks.	Student did not work well in group, contributed little to group tasks.	Student worked in the group setting, contributed only what was necessary to group tasks.	Student worked well in the group setting, contributed to the group in a positive, effective manner.
TOTALS				
STRENGTHS:				
SUGGESTIONS:				
Grand Total:				
STUDENT NAME:				
SECTION:			DATE:	

UNIT 5 – Spreadsheet – Analyzing Data

SUMMARY OF UNIT

Students will create and aesthetically pleasing spreadsheet that displays the sum of all items sold, a percentage of the total items sold in each category as well as the percentage of each item sold.

LEARNING GOALS

Students will:

- Start Excel, open an existing workbook, and save a workbook.
- Import data from Microsoft Access.
- Move the active cell in a worksheet.
- Select cells and enter data in a worksheet.
- Zoom, preview, and print a worksheet.
- Close a workbook and exit Excel.
- Change column widths and row heights.
- Position data within a cell by aligning, wrapping, rotating, and indenting.
- Change the appearance of cells using fonts, font sizes, font styles, colors, and borders.
- Change column widths and row heights.
- Set the margins of a worksheet.
- Insert headers and footers in a worksheet.
- Enter and edit operator formulas.
- Use the sum button to add values in a range.
- Use functions to solve mathematical problems.
- Use an absolute cell reference to find the most popular item.
- Create a chart that will show the percentage of each item sold.

ESSENTIAL QUESTION

- Why is it important to use a spreadsheet to analyze data?
- Why should we create a chart to analyze data?

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

- Standard 8.1.8.A.4 Generate a spreadsheet to calculate, graph, and present information.
- Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- Standard 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

- Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

Computer Applications – Spreadsheet – Analyzing Data Overview

DAYS	OBJECTIVE	PROCEDURE
16-19	Import data into a spreadsheet to analyze data.	<ol style="list-style-type: none"> 1. Students will open Microsoft Excel 2. Students will use the Office button and select Open on the Office menu. 3. Students will save a file by using the Office button and selecting Save on the Office menu. 4. Students will import data from Microsoft Access. 5. Students will enter data in a cell. 6. Students will change the width of a column by clicking and dragging to the desired width. 7. Students will merge and center text within a cell. 8. Students will change the orientation of text by clicking the Orientation button from the Alignment Group in the Home tab of the ribbon. 9. Students will change the font face of selected text. 10. Students will change the font style of selected text. 11. Students will change the font color of selected text. 12. Students will change the fill colors of selected cells. 13. Students will insert borders to the selected cell or range of cells. 14. Students will change the number format to the accounting format. 15. Students will set the margins of a worksheet. 16. Students will insert headers and footers. 17. Students will write a formula that will add, subtract, multiply or divide using cell references. 18. Students will use the AutoSum button to quickly sum a range of values. 19. Students will write a function formula that contains an equal sign, a function name and an argument. 20. Students will write a formula with an absolute cell reference. 21. Students will create a pie chart that show the percentage of each item sold.

WARREN TOWNSHIP SCHOOLS

Microsoft Excel

Lesson Plans

GRADE: 8

UNIT: Spreadsheets

DAYS: 16-19

STANDARDS:

- 8.1.8.A.1 Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.
- 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.
- 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

OBJECTIVE:

1. The learner will start Excel, open an existing workbook, and save a workbook.
2. The learner will import data from Microsoft Access.
3. The learner will move the active cell in a worksheet.
4. The learner will select cells and enter data in a worksheet.
5. The learner will zoom, preview, and print a worksheet.
6. The learner will close a workbook and exit Excel.
7. The learner will change column widths and row heights.
8. The learner will position data within a cell by aligning, wrapping, rotating, and indenting.
9. The learner will change the appearance of cells using fonts, font sizes, font styles, colors, and borders.
10. The learner will change column widths and row heights.
11. The learner will set the margins of a worksheet.
12. The learner will insert headers and footers in a worksheet.
13. The learner will enter and edit operator formulas.
14. The learner will use the sum button to add values in a range.
15. The learner will use functions to solve mathematical problems.
16. The learner will use an absolute cell reference to find the most popular item.
17. The learner will create a chart that will show the percentage of each item sold.

PROCEDURE:

Students will open Microsoft Excel

Students will use the Office button and select Open on the Office menu.

Students will save a file by using the Office button and selecting Save on the Office menu.

Students will import data from Microsoft Access.

Students will enter data in a cell.

PROCEDURE (continued):

- Students will change the width of a column by clicking and dragging to the desired width.
- Students will merge and center text within a cell.
- Students will change the orientation of text by clicking the Orientation button from the Alignment Group in the Home tab of the ribbon.
- Students will change the font face of selected text.
- Students will change the font style of selected text.
- Students will change the font color of selected text.
- Students will change the fill colors of selected cells.
- Students will insert borders to the selected cell or range of cells.
- Students will change the number format to the accounting format.
- Students will set the margins of a worksheet.
- Students will insert headers and footers.
- Students will write a formula that will add, subtract, multiply or divide using cell references.
- Students will use the AutoSum button to quickly sum a range of values.
- Students will write a function formula that contains an equal sign, a function name and an argument.
- Students will write a formula with an absolute cell reference.
- Students will create a pie chart that show the percentage of each item sold.

EVALUATION:

- Student will be assessed using the Analyzing Data Rubric (See rubric)

Warren Township Schools

Spreadsheet

Analyzing Data Rubric

SKILL	1 (BEGINNING)	2 (DEVELOPING)	3 (ACCOMPLISHED)	4 (EXEMPLARY)
Entering Text	Entered required text on 40% of the spreadsheet	Entered required text on 60% of the spreadsheet	Entered required text on 80% of the spreadsheet	Entered required text on 100% of the spreadsheet
Changing Column Widths	Changed the column widths to fit the text within the column on 40% of the spreadsheet	Changed the column widths to fit the text within the column on 60% of the spreadsheet	Changed the column widths to fit the text within the column on 80% of the spreadsheet	Changed the column widths to fit the text within the column on 100% of the spreadsheet
Operator Formulas (Subtotal)	Used the correct operator formula to calculate the subtotal on 40% of the spreadsheet	Used the correct operator formula to calculate the subtotal on 60% of the spreadsheet	Used the correct operator formula to calculate the subtotal on 80% of the spreadsheet	Used the correct operator formula to calculate the subtotal on 100% of the spreadsheet
Operator Formulas (Tax)	Used the correct operator formula to calculate tax on 40% of the spreadsheet	Used the correct operator formula to calculate tax on 60% of the spreadsheet	Used the correct operator formula to calculate tax on 80% of the spreadsheet	Used the correct operator formula to calculate tax on 100% of the spreadsheet
Function Formulas	Used the correct operator formula to calculate the total on 40% of the spreadsheet	Used the correct operator formula to calculate the total on 60% of the spreadsheet	Used the correct operator formula to calculate the total on 80% of the spreadsheet	Used the correct operator formula to calculate the total on 100% of the spreadsheet
Changing the Font Face and Size	Changed the font face and size on 40% of the spreadsheet	Changed the font face and size on 60% of the spreadsheet	Changed the font face and size on 80% of the spreadsheet	Changed the font face and size on 100% of the spreadsheet
Changing Font Styles	Changed the font styles on required text on 40% of the spreadsheet	Changed the font styles on required text on 60% of the spreadsheet	Changed the font styles on required text on 80% of the spreadsheet	Changed the font styles on required text on 100% of the spreadsheet
Fill Color	Changed the fill color on 40% of the spreadsheet	Changed the fill color on 60% of the spreadsheet	Changed the fill color on 80% of the spreadsheet	Changed the fill color on 100% of the spreadsheet
Borders	Inserted borders on 40% of the spreadsheet	Inserted borders on 60% of the spreadsheet	Inserted borders on 80% of the spreadsheet	Inserted borders on 100% of the spreadsheet
Header and Footer	Inserted 40% of the required text on the header or footer	Inserted 60% of the required text on the header or footer	Inserted 80% of the required text on the header or footer	Inserted 100% of the required text on the header or footer
Margins	Inserted margins on 40% of the spreadsheet	Inserted margins on 60% of the spreadsheet	Inserted margins on 80% of the spreadsheet	Inserted margins on 100% of the spreadsheet
TOTALS				
Grand Total:				
STUDENT NAME:				
SECTION:			DATE:	

UNIT 6 – PowerPoint – Presenting Data

SUMMARY OF UNIT

Students will create a Microsoft PowerPoint Presentation that displays the student's business plan, marketing strategy and budget results.

LEARNING GOALS

Students will:

- Create a presentation using Microsoft PowerPoint.
- Add slides.
- Change the layout of a slide.
- Change the design of a presentation
- Use the slide master to set animations.
- Insert entrance, emphasis, and exit animations.
- Add sounds to animations.
- Insert slides
- Insert text and graphics
- Import data from Microsoft Excel

ESSENTIAL QUESTION

- What types of content can you add to a Content placeholder using the icons?
- Why is it easier to animate in the slide master as appose to animating on individual slides?

STANDARDS

New Jersey Core Curriculum Content Standards - Technology

- Standard 8.1.8.A.3 Create a multimedia presentation including sound and images.
- Standard 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- Standard 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

New Jersey Core Curriculum Content Standards – 21st Century Life and Careers

- Standard 9.1.8.E.1 Explain how technology has strengthened the role of digital media in the global society.

Computer Applications – PowerPoint – Presenting Data Overview

DAYS	OBJECTIVE	PROCEDURE
20-25	Create a presentation to display data	<ol style="list-style-type: none">1. Students will open Microsoft PowerPoint2. Students will use the File button and select Open.3. Students will save a file by using the file button and selecting Save.4. Students will choose a theme by clicking the design tab and selecting a theme in the theme group.5. Students will go to the slide master by clicking the view tab and clicking the Slide Master button.6. Students will add animations to the Title Slide master and the Two Content master.7. Students must include entrance, emphasis and exit animations.8. Students will create nine slides as dictated by the Presentation Template sheet.

WARREN TOWNSHIP SCHOOLS
Microsoft PowerPoint
Lesson Plans

GRADE: 8

UNIT: PowerPoint

DAYS: 20-25

STANDARDS:

- 8.1.8.A.1 Create professional documents (e.g., newsletter, personalized learning plan, business letter or flyer) using advanced features of a word processing program.
- 8.1.8.A.5 Select and use appropriate tools and digital resources to accomplish a variety of tasks and to solve problems.
- 8.2.8.B.1 Design and create a product that addresses a real-world problem using the design process and working with specific criteria and constraints.
- 8.1.8.E.1 Gather and analyze findings using data collection technology to produce a possible solution for a content-related or real-world problem.

OBJECTIVE:

1. The learner will create a presentation using Microsoft PowerPoint.
2. The learner will add slides.
3. The learner will change the layout of a slide.
4. The learner will change the design of a presentation
5. The learner will use the slide master to set animations.
6. The learner will insert entrance, emphasis, and exit animations.
7. The learner will add sounds to animations.
8. The learner will insert slides
9. The learner will insert text and graphics
10. The learner will import data from Microsoft Excel

PROCEDURE:

Students will open Microsoft PowerPoint
Students will use the File button and select Open.
Students will save a file by using the file button and selecting Save.
Students will choose a theme by clicking the design tab and selecting a theme in the theme group.
Students will go to the slide master by clicking the view tab and clicking the Slide Master button.
Students will add animations to the Title Slide master and the Two Content master.
Students must include entrance, emphasis and exit animations.
Students will create nine slides as dictated by the Presentation Template sheet.

EVALUATION:

Student will be assessed using the Presentation Rubric (See rubric)

**Warren Middle School
Grade 8 – Technological Literacy
Presentation Template Information**

Application: Presentation

Software: Microsoft PowerPoint

Slide 1: Store Name and Student Names

Slide 2: Mission of Company

Slide 3: Objective of the Company

Slide 4: Business Products

Slide 5: Marketing Strategy

Slide 6: Pie Chart of Category Percentages imported from Excel

Slide 7: Bar Chart of total percentages per item imported from Excel

Slide 8: Category totals imported from Excel

Slide 9: Student Questions

**Warren Township Schools
Presenting Data Rubric
Microsoft Power Point**

SKILL	1 (BEGINNING)	2 (DEVELOPING)	3 (ACCOMPLISHED)	4 (EXEMPLARY)
Long enough to adequately cover assigned material	Completed one to two slides	Completed three to four slides	Completed five to seven slides	Completed nine slides
Content	Included one to two bullets with the required content on each slide	Included three bullets with the required content on each slide	Included four bullets with the required content on each slide	Included five or more bullets with the required content on each slide
Graphics	Included a picture on one to two slides	Included a picture on three to four slides	Included a picture on five to seven slides	Included a picture on all eight slides
Entrance Animations	Included an entrance animation on every object on one to two slides and set the start effect to "On Click"	Included an entrance animation on every object on three to four slides and set the start effect to "On Click"	Included an entrance animation on every object on all five to seven slides and set the start effect to "On Click"	Included an entrance animation on every object on all nine slides and set the start effect to "On Click"
Emphasis Animations	Included an emphasis animation on every object on one to two slides and set the start effect to "After Previous"	Included an emphasis animation on every object on three to four slides and set the start effect to "After Previous"	Included an emphasis animation on every object on all five to seven slides and set the start effect to "After Previous"	Include an emphasis animation on every object on all nine slides and set the start effect to "After Previous". Then move all of the emphasis underneath the corresponding entrance effect.
Exit Animations	Included an exit animation on every object on one to two slides and set the start effect so that the first exit is set to "On Click" and the remaining exit animations are set to "After Previous"	Included an exit animation on every object on three to four slides and set the start effect so that the first exit is set to "On Click" and the remaining exit animations are set to "After Previous"	Included an exit animation on every object on all five to seven slides and set the start effect so that the first exit is set to "On Click" and the remaining exit animations are set to "After Previous"	Included an exit animation on every object on all nine slides and set the start effect so that the first exit is set to "On Click" and the remaining exit animations are set to "After Previous"
TOTALS				
Grand Total:				
STUDENT NAME:				
STRENGTHS:				
SUGGESTIONS:				
SECTION:			DATE:	

Resources

Kendall, J. S., & Marzano, R. J. (2000). *Content knowledge: A compendium of standards and benchmarks for K-12 education* (3rd ed.). Aurora, CO: Mid-Continental Research for Education and Learning, & Alexandria, VA: Association for Supervision and Curriculum Development.

New Jersey State Department of Education. (2008). *Standards clarification project*. Trenton, NJ: Author. Online: <http://www.nj.gov/education/aps/njscep>

Wiggins, G., & McTighe, J. (2005). *Understanding by design* (expanded 2nd ed.). Alexandria, VA: Association for Curriculum and Development.

Resources Specific to Standard 9.1 21st-Century Life and Career Skills

Partnership for 21st Century Learning. (2009). *Framework for 21st century learning*. Online: <http://www.21stcenturyskills.org>

Resources Specific to Standard 9.2 Personal Financial Literacy

Carolan, C. A. (2007). *The ABCs of credit card finance: Essential facts for students*. Trenton, NJ: New Jersey Coalition for Financial Education. Online: http://www.njcfe.org/IFE-ABC_text.html

Jump\$tart Coalition for Personal Financial Literacy. (2007). *National standards in K-12 personal finance education: With benchmarks, knowledge statements, and glossary* (3rd ed.). Online: <http://www.jumpstart.org/guide.html>

Utah State Office of Education. (2004). *General financial literacy*. Online: <http://www.uen.org/core/core.do?courseNum=520802>

Wisconsin Department of Public Instruction. (2006). *Wisconsin's model academic standards for personal financial literacy*. Online: <http://dpi.wi.gov/standards/pdf/pfl.pdf>

Resources Specific to Standard 9.3 Career Awareness, Exploration, and Preparation

National Career Development Guidelines. Online: http://cte.ed.gov/nationalinitiatives/gandctools.cfm?&pass_dis=1

New Jersey Department of Education. (2005). *N.J.A.C. 6A:8, Standards and assessment for student achievement*. Trenton, NJ: Author. Online: <http://www.nj.gov/education/code/current/title6a/chap8.pdf>

Please Note:

Retrieved 6.01.2011 from https://www13.state.nj.us/NJCCCS/ContentAreaTableView_21st.aspx
Edited to focus on Grades K-8.