

Category	Curriculum Subject: Technology Level: High
Objective	Students will be able to: 1. Use the internet for research. 2. Become a better consumer. 3. Use an Excel Spreadsheet for data entry and plotting. 4. Use MsWord to create a Business Letter.
Abstract (50 words or less)	To create a multiple step project which will allow the student to use the information technologies covered in Introduction to Computer Application Class focusing on plotting a five year depreciation schedule of two cars of similar value as well as comparing fuel efficiency.

Describe how your ETP aligns with the National Board Standard stated in your proposal	<p>1.6 Information Technologies : Students will understand technology used in business. They will demonstrate competency by utilizing technology to access, manipulate, and produce information.</p> <p>1.6.1 Applications-utilize a variety of software programs to manipulate, analyze and produce data.</p> <p>1.6.3 Document Processing-create, format and produce documents</p> <p>1.6.6 Presentation-develop and produce presentations utilizing electronic media</p> <p>1.6.7 Problem Solving-solve problems effectively by utilizing appropriate technology</p> <p>1.6.8 Social Issues-discuss the technological issues of ethics and etiquette as they relate to emerging technologies and the impact on society</p>
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Describe the connection between your ETP and the Summer Fellowship	My Summer Fellowship entails compiling Environment and Social Responsibility Data using Excel. The ETP brings the same type of project into the High School Class Room by substituting the subject matter of Corporate Environment and Social Responsibility to an individuals' interest in vehicles.
Resources Needed	Normal Computer Business Classroom Resources (e.g. one Personal Computer, for each student, Microsoft Office, Internet Access, Printers)
Evaluation/Assessment Measures Used	Rubrics
Formatting specifications	PC <u>X</u> or Mac _____ (Must be in MsWord and Excel format)
Submitted Copy	Soft and hard copy due to peer coach by the end of the summer fellowship

CONSUMER PRODUCT PURCHASE ANALYSIS TIMELINE OVERVIEW

As detailed on the following pages, this project is divided into 5 parts. The timeline below is an overview of how the project is scheduled in the classroom.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<u>Part 1</u> Student selection of vehicles.	<u>Part 2</u> Student Internet research.	<u>Part 2</u> Student Internet research	<u>Part 2</u> Student Internet research	<u>Part 3</u> Student writes business letter	
	<u>Part 3</u> Student writes business letter	<u>Part 3</u> Student writes business letter	<u>Part 3</u> Student writes business letter	<u>Part 3</u> Student writes business letter	<u>Part 4</u> Student creates Excel Workbook	
	<u>Part 4</u> Student creates Excel Workbook	<u>Part 4</u> Student creates Excel Workbook	<u>Part 4</u> Student creates Excel Workbook	<u>Part 4</u> Student creates Excel Workbook	<u>Part 5</u> Student prepares final Business Letter with attachments	
	<u>Part 5</u> Student prepares final Business Letter with attachments	<u>Part 5</u> Student prepares final Business Letter with attachments	<u>Part 5</u> Student prepares final Business Letter with attachments	<u>Part 5</u> Student prepares final Business Letter with attachments		

NOTE:

The project is a coordinated effort between the Business Department – Technology and the Math Department giving the student an opportunity to utilize basic concepts learned in multiple classes in a single problem solving exercise. The project allows the student to work on a project of personal interest.

INTRODUCTION:

1. Using LCD Projector and computer, demonstrate for students the format for creating a Business Letter using MSWORD.

Estimated time to introduce Business Letter format using MSWORD: 2 to 3 days. (See attached Sample Business Letter Format). Student will demonstrate an understanding of the format of a business letter by typing and printing several assignments that will given by the teacher.

2. Using LCD Projector and computer, demonstrate for students:
 - Creating a new workbook in Excel
 - How to name and save the workbook on the server
 - How “sheets” work (i.e. selecting, moving and renaming)
 - How to enter in data
 - How to enter and format column and row headings
 - How to create and enter formulas
 - The basic functions and layout of the Excel toolbar, menus and sub-menus
 - How to use Excel chart creation features
 - How to ”Help” to get answers to questions

Estimated time to introduce Excel including in-class demonstration, problem solving activities, and discussion: 2 weeks.

Part 1

Objective Students will select the make and model of two automobiles of their choice. The two automobiles must be of the same model year and similar value.

TimeLine: One day

Description: In class discussion of vehicle classifications (i.e. Compact, Subcompact, SUV, etc.)

For example, students can choose a Honda Civic and compare it to a Toyota Corolla which are both in the same category, price, size and contain comparable standard features. Get it approved by the teacher.

Part 2

Objective: Students will find the depreciation information and fuel efficiency for the two vehicles over a five year period.

TimeLine: Three days

Description: Students will use an Internet search engine to locate an internet site that contains automotive depreciation information. Students will use the U.S. Environmental Protection Agency Web Site to find the vehicle fuel efficiency.

- In class demonstration of internet search engines such as Yahoo or Google and how to search for topics. 30-35 minutes.
- In class demonstration of depreciation over a 5 year period. 30-35 minutes.

Part 3

Objective: Students will write the teacher a business letter.

TimeLine: One Week

Description: The Business Letter will propose to the teacher of the make and model of the vehicles they have chosen as well as the selection of the search engine and internet site where the depreciation information was found.

Part 4

Objective: Upon the approval of the student's Business Letter Proposal by the teacher, the student will enter and format the vehicle data information into an Excel Workbook.

TimeLine: One Week

Description: Student will title the Excel workbook "Car Depreciation by (student's name and class period)". Student will enter the following data in Sheet 1:

1. Column Headings beginning Row B, (Initial Cost, Year 1, Year 2, , Year 3, Year 4, Year 5)
2. Row Heading in Column A (Year, Make and Model of Vehicle, Depreciation , Value)
3. The Vehicle Initial Value and the five depreciation amounts in the appropriate cells.
4. The Excel formulas to compute the annual depreciated value for each year which will be used in plotting the value of the vehicle from one year to another.

(See attached sample of Excel Workbook on Vehicle Depreciation).

Part 5

Objective: Student will hand in the final version of the project to the teacher.

TimeLine: One Week

Description: Student will hand in the final revision of the business letter with an attachment that will contain the layout of the Excel Sheet, the Chart, the vehicle fuel efficiency and pictures of the vehicles. (See attached Sample of the Care Depreciation)

EXAMPLE REFERENCE INTERNET WEB SITES FOR THE PROJECT

Search Engines:

- www.google.com
- www.yahoo.com
- www.msn.com

Depreciation Web Sites:

- www.kbb.com (Kelly Blue Book)
- www.edmunds.com

Vehicle Mileage Data

- www.epa.gov (U.S Environmental Protection Agency)

SAMPLE BUSINESS LETTER FORMAT

1

13 Spaces from the top of the page
One Inch to the left and one inch to the right

Return Address 1029 Michigan Ave.
Chicago, IL 60611
Date September 9, 2005

QS (4 hard returns)

Letter address Mr. Elden P. Carter
7257 Charles Plz.
Omaha, NE 68114

DS

Salutation Dear Elden

DS

Body Your telephone call on Wednesday was a really pleasant surprise. Life for both of us since college has been exciting as well as challenging, it seems. I enjoyed the update.

DS

If you had taken keyboarding as I recommended when we were in high school, you wouldn't be asking me now for a model to use for your personal-business correspondence! But I am glad to supply this model in block format (all lines beginning at the left margin).

DS

Use the software default or 1" side margins. Begin the return address 2" (line 13) from the top of the paper. Key the date on the next line below the return address.

DS

All letter parts are separated by a double space (2 returns) with two exceptions: A quadruple space (4 returns) is left between the date and the letter address and between the complimentary close and the keyed name.

DS

Complimentary close Cordially

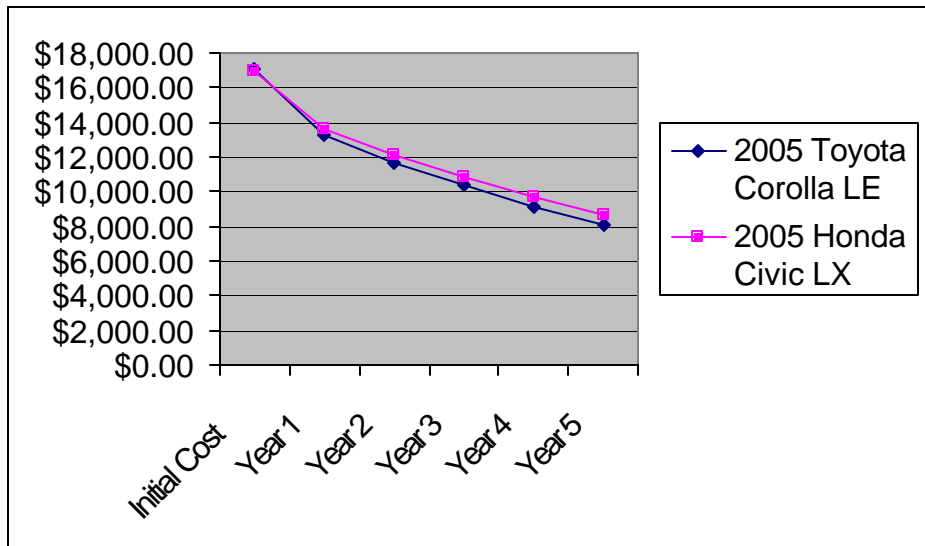
QS (4 hard returns)

Writer John Doe

¹ Reference: Robinson, Hoggatt, Shank, Beaumont, Crawford, Erickson, Keyboarding & Information Processing, South-Western Educational Publishing, 2000

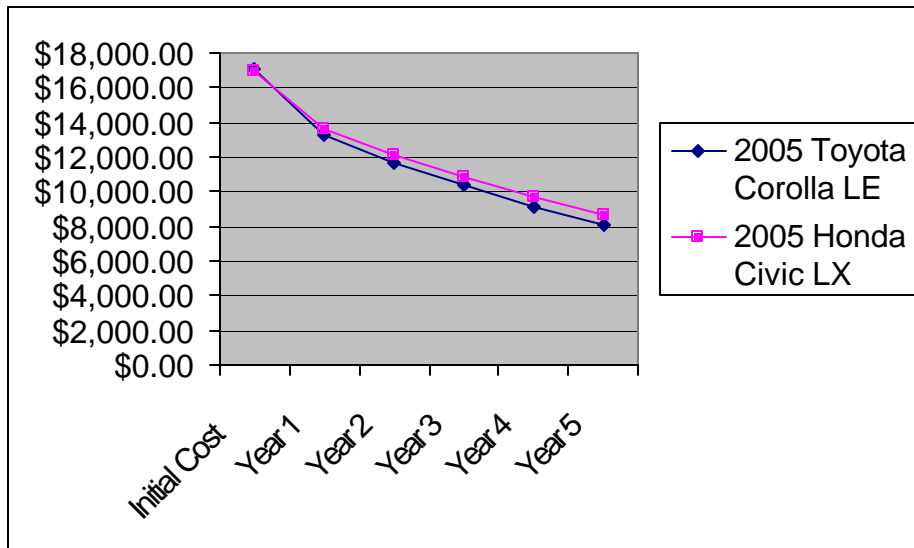
SAMPLE WORKBOOK ON VEHICLE DEPRECIATION

	Initial Cost	Year 1	Year 2	Year 3	Year 4	Year 5
2005 Toyota Corolla LE						
Depreciation		\$3,874.00	\$1,525.00	\$1,342.00	\$1,189.00	\$1,067.00
Value	\$17,101.00	\$13,227.00	\$11,702.00	\$10,360.00	\$9,171.00	\$8,104.00
2005 Honda Civic LX						
Depreciation		\$3,366.00	\$1,452.00	\$1,277.00	\$1,132.00	\$1,016.00
Value	\$16,925.00	\$13,559.00	\$12,107.00	\$10,830.00	\$9,698.00	\$8,682.00
	Initial Cost	Year 1	Year 2	Year 3	Year 4	Year 5
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SAMPLE Car Depreciation

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Toyota Corolla LE
 MPG Highway _____
 MPG City _____



Honda Civic LX
 MPG Highway _____
 MPG City _____



Author: Elliott Terr

Business Letter Writing Rubric

Objectives	Low Performance	Below Average	Average	Above Average	Exemplary Performance	Earned Points
Knowledge of business letter format.	1 points Student failed to present knowledge of business letter format.	2 points Student presents less than adequate knowledge of business letter format.	3 points Student presents adequate knowledge of business letter format.	4 points Student presents knowledge of appropriate business letter format.	5 points Student presents excellent knowledge of business letter format.	□
Letter information	1 point Letter did not present any information.	2 points Letter had weak information.	3 points Letter had some information.	4 points Letter had good information.	5 points Letter had excellent information.	□
Creativity	1 point Student was not creative in writing letter.	2 points Student displayed some creativity.	3 points Student displayed appropriate creativity.	4 points Student displayed better than average creativity.	5 points Student had excellent creativity.	□
Mechanics	1 point Letter had overwhelming number of errors.	2 points Letter had many mechanical errors.	3 points Letter had some mechanical errors.	4 points Letter had few mechanical errors.	5 points Letter had no mechanical errors	□
Research on vehicle	1 point No evidence student researched vehicle.	2 points Some evidence student researched vehicle.	3 points Implied evidence student researched vehicle.	4 points Stated evidence student researched vehicle.	5 points Excellent evidence that student researched vehicle.	□
					Score:	□

Student Name: _____

Author: Elliott Terr

Excel Spreadsheet Rubric

Objectives	Low Performance	Below Average	Average	Above Average	Exemplary Performance	Earned Points
Knowledge of Excel cell format.	1 points Student failed to present knowledge of Excel cell format.	2 points Student presents less than adequate knowledge of Excel cell format.	3 points Student presents adequate knowledge of Excel cell format.	4 points Student presents knowledge of appropriate Excel cell format.	5 points Student presents excellent knowledge of Excel cell format.	<input type="text"/>
Creativity	1 point Student was not creative in spreadsheet layout.	2 points Student displayed some creativity.	3 points Student displayed appropriate creativity.	4 points Student displayed better than average creativity.	5 points Student had excellent creativity.	<input type="text"/>
Layout	1 point Layout had overwhelming number of errors.	2 points Layout had many errors.	3 points Layout had some errors.	4 points Layout had few errors.	5 points Layout had no errors	<input type="text"/>
Chart	1 point Chart had overwhelming number of errors.	2 points Chart had many errors.	3 points Chart had some errors.	4 points Chart had few errors.	5 points Chart had no errors	<input type="text"/>
Spelling	1 point Spreadsheet had overwhelming number of errors.	2 points Spreadsheet had many errors.	3 points Spreadsheet had some errors.	4 points Spreadsheet had few errors.	5 points Spreadsheet had no errors	<input type="text"/>
					Score:	<input type="text"/>

Student Name: _____