

Computer 1

Technology
Not NCAA Approved

Grade(s) 9th - 12th, Duration 1 Semester, 1 Credit
Required Course

Description

This is the introductory computer class at MEHS, and is designed for first-year students. Students will learn basic computer hardware and Microsoft Office software, as well as become familiar with the MEHS network. The students will learn keyboarding skills and work with desktop publishing software such as Adobe Photoshop and Adobe InDesign

Scope And Sequence

Timeframe	Unit	Instructional Topics
10 Day(s)	Computer Hardware - "My Dream Computer"	1. Basic Computer Vocabulary 2. Major Computer Components 3. Recognize the value (\$) of a computer
30 Day(s)	Microsoft Office Software	1. Microsoft Word - Word Processing 2. Microsoft Excel - Electronic Spreadsheets 3. Microsoft PowerPoint - Presentation Software
30 Day(s)	Desktop Publishing	1. My Life Brochure
15 Day(s)	Projects	

Materials and Resources

Students should have a pencil/pen and a folder for keeping handouts and notes.

Prerequisite (What do you need to take before this)

No prerequisites

Postrequisite (Allows you to take these courses)

Computer 1 prepares students to move on to Computer 2 and other advanced technology courses

Location

Large Computer Lab - Room 120

Course Details

Unit: Computer Hardware - "My Dream Computer"

Duration: 10 Day(s)

Description

This unit is designed to introduce students to computer hardware. The student will learn the name and purpose of major computer components, as well as how to measure performance and value.

I have three goals for this unit: (1) the students will learn basic computer vocabulary, (2) the students will learn the major internal components of a computer, and (3) the students will learn how to determine the value of a computer.

Essential Questions

- What are the major hardware and software components of a computer?
- How are computer features different from one another?
- How is a computer set up properly?
- What makes a computer more or less valuable?

Assessments

- Dream Computer Quizzes (2)
- Final Computer Purchase

Resources

- Internet
- In class discussion and notes
- A+ Computer Hardware textbooks

Vocabulary

Computer hardware and software terms including but not limited to:
hardware, software, memory, hertz, binary, bit, byte, desktop, notebook, laptop, netbook, drives, server, network, operating system, processor, hard drive, RAM, ports, motherboard, power supply, heat sink, case, case fan, bios, measurement prefixes including kilo, mega, giga, and tera.

Topic: Basic Computer Vocabulary

Duration: Ongoing

Description

The student will learn basic computer vocabulary, including measurement terms, internal computer components, and network equipment.

Knowledge Skills

The students will learn computer vocabulary including:
Desktop Terms - *My Computer, My Network, Start Menu, Desktop, Tool Bar*
Hardware Terms - *A: Drive, C: Drive, RAM, Port, Processor, Software, Hardware, Server*
Measurement Terms - *Hertz (Hz), Bytes*, and prefixes such as *Kilo, Mega, Giga, Terra*
Computer Shortcuts - *Ctrl X, C, V, S, O, P, A, Z*

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Assessment: We will have 2 quizzes during this unit in which vocabulary will be assessed with multiple choice questions, matching, and fill-in the blank.

Knowledge Skills linked to Power Standard = +

Topic: Major Computer Components

Duration: Ongoing

Description

The students will learn to identify the major components of a computer, and recognize each components function.

Knowledge Skills

The student will learn the name and function of major computer components including the processor, RAM, and the hard drive. We will use an online site that lists major internal components and offers written descriptions of each part. The students will work with a partner to complete a worksheet on which they will name and describe the function of the major components in words and terms that a 5th grader can understand

Assessment: Classwork

Knowledge Skills linked to Power Standard = +

Topic: Recognize the value (\$) of a computer

Duration: Ongoing

Description

The student will learn to recognize the characteristics of both inexpensive and expensive computer hardware. It is the goal of the instructor that the students learn to be educated consumers. The final project involves the students "buying" a computer and defending their choice for performance and value.

Knowledge Skills

The student will learn to recognize the characteristics of both expensive and inexpensive computers.

Assessment: Classwork

Knowledge Skills linked to Power Standard = +

Unit: Microsoft Office Software

Duration: 30 Day(s)

Description

The students will become familiar with Microsoft Office software such as Word, Excel, and PowerPoint

Essential Questions

Can the student use word processing, electronic spreadsheets, and presentation software effectively in support of their learning at MEHS and beyond?

Topic: Microsoft Word - Word Processing

Duration: 10 Day(s)

Description

The student will learn to navigate and operate MS Word in order to create documents including personal and business letters, reports, and flyers

Knowledge Skills

The students will write a personal letter in MS Word.

Description: The students can write the letter to a real person in their lives, or to a fictitious character. Spelling and grammar must be perfect. The letter must be more than 1/2 page in length double spaced and have a header and footer, a minimum 2x4 table, a greeting and closing line, and an appropriate graphic or picture.

Assessment: Classwork

The student will create a report with MS Word

Description: The student will research a country in Europe with the website www.wbol.com. The students will be given a note-taking guide which directs the students to find facts such as the countries capital city, population, geographic location, etc. The student will use their notes to create a report about the country of their choice. The report must be 2 pages double spaced and must include all of the required information in paragraph format.

Knowledge Skills linked to Power Standard = +

Topic: Microsoft Excel - Electronic Spreadsheets

Duration: 10 Day(s)

Description

The student will learn to use MS Excel to create spreadsheets.

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Knowledge Skills

The students will create an Excel spreadsheet for an imaginary business.

Description: The student will create a business idea and use MS Excel to keep track of inventory numbers for a minimum of 15 items. The student will research current market prices online for the items that they wish to sell. We will assume a 20% markup in order to reach current market prices and will use formulas in Excel to find the students cost for items and the profit produced when sales are made.

Assessment: Classroom Observation

Knowledge Skills linked to Power Standard = +

Topic: Microsoft PowerPoint - Presentation Software

Duration: 15 Day(s)

Description

The student will learn to use MS PowerPoint to create presentations that will be shared with the instructor, other students, and the entire class.

Knowledge Skills

The student will create a commercial for an imaginary business with MS PowerPoint. The student will present the commercial to the class.

Description: The student will create a commercial that contains a minimum of 5 products with descriptions and prices. The students commercial must include the name of their business, business slogan, business address and contact information such as telephone number and website address.

Knowledge Skills linked to Power Standard = +

Unit: Desktop Publishing

Duration: 30 Day(s)

Description

The student will learn to use digital photography and graphics to create unique and individual documents.

Topic: My Life Brochure

Duration: 10 Day(s)

Description

The student will create a 3-column double sided brochure about themselves. The finished product will be mailed home to their parents.

Knowledge Skills

The student will use Adobe Photoshop and Adobe InDesign to create a 3-column double sided brochure about themselves. The completed brochure will be mailed home to the students family.

Description: The students will create a 3-column double sided brochure in Adobe Indesign, The brochure must have a title panel with a picture of the student. The student will include text that describes facts about themselves and their experiences both at home and at MEHS. The student will use Adobe Photoshop to modify and enhance digital images for use in the brochure.

Assessment: Rubric

Knowledge Skills linked to Power Standard = +

Unit: Projects

Duration: 15 Day(s)

Description

We use several projects to incorporate the programs that students use in class into a common portfolio. We use the Business Project most semesters, it is a great way for students to use word processing, electronic spreadsheets, presentation software, desktop publishing programs, and internet searching techniques together. Students create 6 documents based on the theme of a student-run business.

Essential Questions

Can students use office software to create a portfolio of work centered around a business theme?

Assessments

Students create a portfolio of work with office and publishing software and present a commercial to the class.

Knowledge Skills linked to Power Standard = +