

**Wilson Area School District
Planned Course Guide**

Title of planned course: Introduction to Computers

Subject Area: Business

Grade Level: 9 - 12

Course Description: This course is designed to prepare students to enter the work force after graduation or attend a community or four-year college. More than half of the class will be spent using the computers in or to gain an understanding of the latest technologies and software applications used today. The rest of the class will be spent learning about various parts of the computer and the operation of the entire computer system. Students will learn how to get the most out of a computer while solving personal and business related computer and software problems. Word, Spreadsheet, and Access from the Microsoft Office suite are just a few of the many software packages that will be utilized.

Time/Credit for this Course: Full year / 1 credit

Curriculum Writing Committee: Daniel Loudenslager

**Wilson Area School District
Planned Course Materials**

Course Title: Introduction to Computers

Textbook: Computer Concepts Basics 4e
Course Technology / Cengage Learning
2010
www.cengage.com

Supplemental Books:

Teacher Resources:

Curriculum Map

August: Computers and Computer Literacy

September: The Internet / The Computer System

October: Networks / File Management and E-mail

November: Word Processing

December: Presentation Graphics

January: Spreadsheets

February: Databases

March: Evaluating Electronic Information / Create a Web Page

April: Create a Web Page

May: Technology, the Workplace and Society

June: Technology, the Workplace and Society

Curriculum Scope & Sequence

Planned Course: Introductions to Computers

Unit: Computers and Computer Literacy

Time frame: 2 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10 A-CE, 8.1.9A

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to discuss the history of computers and how they work, define the different computer classification categories, and identify how we use computers and technology in our daily lives.

Core Activities: Students will complete/participate in a write-up on the history of computers; define vocabulary terms; create a poster on how computers work; classify the different categories of computers; list how computers and technology are used in daily life.

Extensions: Compose a research paper on computer history; create a vocabulary review activity; give presentations on computer operation, computer categories and daily use; modified writing assignments.

Remediation: Complete a worksheet on computer history; list the steps on computer operation; define the different categories of computers; describe how you use computers and technology; modified writing assignments; print class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice
- Projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Various application software
- Articles

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: The Internet

Time Frame: 2 weeks

State Standards: 3.7.10, 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 8.1.9A

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to explain the origin of the Internet, how it works and its various features. Students will also effectively use the Internet for researching information.

Core Activities: Students will complete/participate in explaining the origin of the internet; define vocabulary terms related to the World Wide Web; list the steps and features for launching and using the Internet browser; practice using other Internet features; use the Internet to research a topic.

Extensions: Research and present information on the origin of the Internet. Explain the steps and features for launching and using the Internet browser; write guidelines for effectively using the Internet to do research; modified writing assignments.

Remediation: Describe the origin of the Internet; launch and use the Internet browser; Explain one guideline for the effective use of the Internet to do research; modified writing assignments; print class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Various application software

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: The Computer System

Time Frame: 1 week

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10A-CE

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to explain the computer processing cycle, identify various input, output and storage devices and differentiate between hardware and software.

Core Activities: Students will complete/participate in illustrating the processing cycle and define its component parts; identify input, output, and storage devices and how they are connected to the computer; distinguish between software and hardware; compare operating systems.

Extensions: Create and present a poster on the processing cycle and its component parts; create a diagram distinguishing software and hardware; research advantages and disadvantages of various operating systems; modified writing assignments.

Remediation: List the steps of the processing cycle; define various types of hardware and software; explain one operating system, modified writing assignments; print the class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Alice
- Various application software

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Networks

Time Frame: 1 week

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.6.10BE

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to list the advantages and disadvantages of networks, differentiate between network types and illustrate network architectures.

Core Activities: Students will complete/participate in creating a chart listing advantages and disadvantages of networks; compare the types of networks; list hardware components of networks; define the types of wireless media, draw the three types of network topologies.

Extensions: Give a presentation on the advantages and disadvantages of networks; complete research on the best locations to use specific types of networks; explain what hardware devices are used in specific types of networks; provide examples of wireless media; draw the 3 network topologies; modified assignments.

Remediation: List the advantages and disadvantages of networks; define each type of network and its hardware components; explain what wireless media is; explain the difference between network topologies; modified assignments; print class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Alice
- Various application software

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes.
- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: File Management and E-mail

Time Frame: 1 week

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10E, 3.6.10B

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to effectively and efficiently manage computer files. Students will explain the importance and effective use of e-mail for business and personal situations.

Core Activities: : Students will complete/participate in defining file management; manage files and folders on the computer; define e-mail; explain how to set up an e-mail account; explain various e-mail features; list the practices for e-mail etiquette.

Extensions: Demonstrate file management features on the computer for the class; demonstrate setting up an e-mail and using various e-mail features; create an e-mail etiquette checklist; modified assignments.

Remediation: Define file management; number the steps in setting up an e-mail account; define various e-mail features; explain the meaning of e-mail etiquette; modified assignments; print the class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice
- Projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Various application software

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Word Processing

Time Frame: 4 – 5 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to effectively use the basic features of Microsoft Word 2007.

Core Activities: : Students will complete/participate in identifying the parts of the Word window; create, save and print a document; open and edit an existing file; format paragraphs and pages; create headers, footers, illustrations and tables.

Extensions: Compose a research paper in Word with editing formatting guidelines; modified writing, editing and Word document assignments.

Remediation: Students will open a completed document and make necessary changes to editing and formatting.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Microsoft Word
- Articles

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Presentation Graphics

Time Frame: 4 - 5 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to create a presentation in Microsoft PowerPoint using basic controls and features.

Core Activities: : Students will complete/participate in defining the guidelines for an effective presentation; create a PowerPoint presentation; view a presentation; define guidelines for delivering a presentation.

Extensions: Create and deliver a presentation on a topic of the students choice according to a rubric; modified presentation assignments.

Remediation: Create and deliver a presentation with teacher or peer assistance.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Various application software

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Spreadsheets

Time Frame: 4 – 5 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to effectively use spreadsheet software to evaluate, calculate, manipulate, analyze and present numeric data.

Core Activities: : Students will complete/participate in defining the parts of the Microsoft Excel window; enter, edit and delete data and formulas; format, save and print data on a spreadsheet; use advanced features in Excel; create a chart in Excel.

Extensions: Students will prepare a personal budget; create financial statements for a business of their choice; complete a payroll; design sales reports; manage inventory for a business; keep sports statistics; modify the above activities to fit the needs of the students.

Remediation: Provide students with step by step instructions for the previously mentioned activities; have students perform calculations only; students will create charts from given data; print notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Microsoft Excel

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Databases

Time Frame: 4 – 5 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to demonstrate effective information management using Microsoft Access.

Core Activities: : Students will complete/participate in creating a table using Microsoft Access; add, edit and delete data from a table; modify table structure; perform other features in database software.

Extensions: Students create a customer database for a business; create a database of students' best friends.

Remediation: Students create a database with given information.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Microsoft Access

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Evaluating electronic Information

Time Frame: 1 week

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D, 3.6.10B

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to evaluate electronic information, explore legal and ethical issues concerning electronic information and use electronic information for personal and educational purposes.

Core Activities: : Students will complete/participate in identifying reasons and criteria for evaluating electronic resources and information; describe software piracy; list internet resources; cite internet sources appropriately.

Extensions: Locate both reliable and unreliable websites according to electronic resource criteria; identify cases of software piracy; use various internet resources to complete a research project; cite sources appropriately.

Remediation: Writing assignment on the importance of evaluating electronic resources and information; explain various methods of software piracy; list specific internet resources students can use for educational purposes; explain if internet sources are cited appropriately; print class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Various software applications

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Creating a Web Page

Time Frame: 4 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to publish Web page.

Core Activities: : Students will complete/participate in describing how a web page works; insert various hyperlinks; create a basic web page; list the features of web pages that users look for most.

Extensions: Create a web page from scratch, including the features to make it user friendly.

Remediation: Student write-up describing a web page they would create; modified writing assignments; print class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Microsoft Frontpage
- Microsoft Publisher
- Various software applications
- Articles

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project

Curriculum Scope & Sequence

Planned Course: Introduction to Computers

Unit: Technology, the Workplace and Society

Time Frame: 2 weeks

State Standards: 1.2.8A, 1.4.11B, 1.5.8A-DG, 1.6.11A-E, 1.8.11A-C, 3.7.10D

Anchor(s) or adopted anchor:

Essential content/objectives: At end of the unit, students will be able to describe the impact of technology on our daily lives and the threats to individual's technological privacy.

Core Activities: : Students will complete/participate in describing the impact of technology on daily life; identify computer crimes; list computer viruses and security measures necessary to repair the damage; research computer related laws; define different types of computer predators; describe how privacy is invaded with computer use.

Extensions: Complete a report on the effects of technology over the past decade; locate articles on computer security threats; identify how you would protect your computer system; describe the effects of privacy invasion on computer use; modified writing assignments.

Remediation: Modified research and writing assignments. Print class notes and review worksheet.

Instructional Methods:

- Direct instruction
- Guided and independent reading
- Large and small group discussion and activities
- Independent practice and projects
- Simulations

Materials & Resources:

- Teacher generated worksheets
- Internet Explorer
- Articles
- Various software applications

Assessments:

- Formative
 - Observation
 - Multi-level questioning
 - Discussions
 - Writing response
 - Homework assignments
 - Rubrics
 - Quizzes

- Summative
 - Lesson quizzes or projects
 - Unit test or project