WARREN COUNTY SCHOOL DISTRICT

Planned Instruction

Course Title: COMPUTER TECHNOLOGY

Course Number: 1253

Suggested Educational Level(s):   9th Grade

Suggested Periods Per Week: 5   **Length of Period**: 40 minutes

Suggested Length Of Course: 90 days

Units Of Credit (If Appropriate):   1/2

Date Written: Feb 11, 2002   **Date Approved**:

Date Reviewed: Aug 1, 2005   **Implementation Year**:   2006 - 2007

Teacher Certification Required:

Standards Addressed (code):

Science and Technology 3.6.10B, 3.7.10C, 3.7.10D, 3.7.10E 3.7.12C, 3.7.12D, 3.7.12E

Mathematics 2.1.1A, 2.2.11A, 2.2.11E, 2.2.11F, 2.5.11A, 2.5.11B, 2.5.11C, 2.5.11D, 2.8.11B

Relationship to Other Planned Instruction:

Prerequisites:

Special Requirements: There should be only one student per computer during lab sessions.

Writing Team Members: **Revision Team Members**

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Standards addressed (code and description):

3.6 Technology Education

3.6.10 B Apply and analyze knowledge of information technologies to encoding, transmitting, receiving, storing, retrieving and decoding.

3.7   Technological Devices

3.7.10 C   Apply basic computer operations and concepts

3.7.12 C   Evaluate computer operations and concepts as to their effectiveness to solve specific problems.

3.7.10 D   Utilize computer software to solve specific problems.

3.7.12 D Evaluate the effectiveness of computer software to solve specific problems.

3.7.10 E Apply the basic computer communications systems.

3.7.12 E Assess the effectiveness of computer communication systems.

2.1.11A Use operations

2.2.11A Develop and use computation concepts, operations and procedures with real numbers in problem solving situations

2.2.11E Recognize that the degree of precision needed in calculating a number depends on how the results will be used and the instrument used to generate the measure

2.2.11F Demonstrate skills for using computer spreadsheets and scientific and graphing calculators

2.5.11A Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems

2.5.11.B Use symbols, mathematical terminology, standard notation, mathtematical rules, graphing and other types of mathematical representations to communicate observations, predictions, ideas and results.

2.5.11.C Present mathematical procedures and results clearly, concisely, systematically, succinctly and correctly.

2.5.11.D Conclude a solution process with a summary of results and evaluate the degree to which the results obtained represent an acceptable response to the initial problem and why the reasoning is valid.

2.8.11B Give examples of patterns that occur in data from other disciplines.

COURSE DESCRIPTION: (Brief – suitable for course descriptions issued to students.)

This course is required of all ninth grade students in the Warren County School district.

The purpose of this course is to help students acquire the skills necessary to become proficient with the computer. This course will include topics in word processing, databases, spreadsheets, desktop publishing, presentations, and web pages.

Outline of Content Sequence and Recommended Time (weeks or days):

5 Days	I. Word Processing
15 Days	II. Relational Database Operations
30 Days	III. Applications of Spreadsheets
15 Days	IV. Using Desktop Publishing Software
15 Days	V. Presentation Software
5 Days	VI. Personal Web Page Design

Specific Educational Objectives to be Taught:

5 Days

I. Word Processing
   a. Toolbars
   b. Review of Basics
   c. Format Enhancements
   d. ClipArt/WordArt

15 Days

II. Relational Databases
   a. Review of Basics
   b. Multiple tables (Relationships and Linking) Short and Simple
   c. Calculated fields in tables and queries
   d. Modifying, and Enhancing Reports
   e. Legal Issues
   f. Troubleshooting

III. Applications in Spreadsheets
   a. Review of Spreadsheets
      i. Absolute Cell Reference
      ii. Adjusting Row Heights, and Column Width
   b. Formulas and Functions
      i. Ave, Max, Min, Count, Sum
      ii. If, SUMIF, COUNTIF, PMT
      iii. Optional Amortization

30 Days

   c. Applying Advanced Formats to Worksheets and Charts
      i. Conditional Formatting
      ii. Merging Cells and Clearing the Merge
      iii. Hiding Cells, Columns, Rows
      iv. Making Your Work Unique
      v. Enhance the Chart Background
      vi. Adding Comments to a Cell
   d. Filtering and Extracting Data
   e. Importing, Exporting, and Integrating Data
   f. Using Templates
      i. Using Available Templates
      ii. Creating your own Templates(optional)
   g. Working with Multiple Worksheets and Workbooks
   h. Legal Issues
   i. Troubleshooting

IV.   Using Desktop Publishing Software
    a. Review of Basics

15 Days
    b. Designing a Brochure
    c. Designing a Newsletter(Multiple Pages)
        i. Import Articles
    d. Legal issues
    e. Troubleshooting

V.   Presentation Software
    a. Review Presentation Modifications and Enhancements

15 Days
    b. Discuss Established Guidelines of an Effective Presentation
    c. Delivering and Critiquing a Presentation

VI.   Web Page Designs
    a. Web knowledge
    b. Purposes for Web Pages

5 Days
    c. Use a software package for designing a personal web Page
    d. Using HTML Formatting (Optional)
    e. Using HTML to add or resize graphic objects in a web document (Optional)
    f. Legal Issues

ASSESSMENTS

Teachers will develop formative and summative assessments based on these rubrics:
Database Development
Applications of Spreadsheets
Designing a Web Site
Desktop Publishing
PowerPoint Presentation

Teachers will work collaboratively to develop a Challenge Assessment for this course.

EXCEL SPREADSHEET GRADING RUBRIC

Standard	Advanced	Proficient	Basic	Below Basic
Standard #1: Is able to accurately and effectively utilize information in an existing spreadsheet	Demonstrates mastery over the process of utilizing spreadsheet information.	Carries out the use of spreadsheet information without significant error	Makes significant errors when using spreadsheet information	Makes critical errors when using spreadsheet information
Standard #2: Is able to accurately create a new spreadsheet	Demonstrates mastery over the process of creating a spreadsheet	Carries out the creation of a new spreadsheet without significant error	Makes significant errors when creating a spreadsheet	Makes critical errors when creating a spreadsheet
Standard #3: Is able to create graphs from spreadsheet data	Demonstrates mastery over the process of creating graphs from a spreadsheet	Carries out the creation of graphs from a spreadsheet without significant error	Makes significant errors when creating graphs from a spreadsheet	Makes critical errors when creating graphs from a spreadsheet

Required/Approved Textbooks and Materials:

To be determined