Computer Science
Grade: 7

COMP 100 Computer Science

      1 credit

      3 days per week; 1 year

      Taught in English

This is a ***required course for all 7th grade students*** in both the Mexican and/or U.S. diploma program. In this class students will work with Windows Operating System. The major emphasis is on using Microsoft products. Students will develop skills for word processing, presentations, math calculations and data charting. The use of comparable Google products will continue (as previously introduced). Students will learn the internet's basic concepts and its correct use. Finally, students will identify computer components.

Textbook: None

      Prerequisite: None

Benchmark Code – Subject: Computer Science = CS

Strand 1= Operating the Computer

Strand 2= Keyboarding

Strand 3= Word Processing

Strand 4= Graphics

Strand 5= Internet /Networking

Strand 6= Multimedia

Strand 7= Spreadsheets

Strand 8= Databases

Strand 9= Authoring Software

Standards

1.- The student understands basic technology operations and concepts.

2.- The student uses technology responsibly and ethically.

3.- The student uses technology to communicate effectively and creatively.

4.- The student uses technology for thinking, learning, and producing real world situations.

5.- The student uses technology for research, problem-solving, and decision-making.

Code: Subject.Grade.strand#.standard#. Benchmark#

Example: CS.7.1.1.3 – Computer Science, seventh grade, strand 1, standard 1, benchmark 3

Strand 1: OPERATING THE COMPUTER

Standard 1: The student understands basic technology operations and concepts.

Benchmark Code	Benchmark
CS.7.1.1.1	The student will describe the purpose of internal and external computer components and devices.
CS.7.1.1.2	The student will describe the meaning and function(s) of: computer, software, hardware, input devices, output devices, storage devices, icon, file, folder, shortcut, program, operating systems and ASCII code.
CS.7.1.1.3	The student will review computer history and will identify each different type of computer generation.
CS.7.1.1.4	The student will identify advantages and disadvantages of each computer generation.

CS.7.1.1.5	The student will identify Windows Desktop's components.
CS.7.1.1.6	The student will correctly use Windows Explorer, Find, Recycle Bin, and Windows Help.
CS.7.1.1.7	The student will correctly use Notepad, WordPad, Paint, Calculator, Windows Media, and Command Prompt.

Strand 2: KEYBOARDING

Standard 1: The student understands basic technology operations and concepts.

Benchmark Code	Benchmark
CS.7.2.1.1	The student will review the use of simple and combination keys.
CS.7.2.1.2	The student will memorize, identify, and apply ASCII code keyboard shortcuts.
CS.7.2.1.3	The student will continue to complete keyboarding lessons to improve accuracy and speed.

Strand 3: WORD PROCESSING

Standard 1: The student understands basic technology operations and concepts.

Benchmark Code	Benchmark
CS.7.3.1.1	The student will review key elements in Word, Power Point and Google Apps.
CS.7.3.1.2	The student will recognize and use two ways of typing: Insert and Overtype.
CS.7.3.1.3	The student will practice basic features such as: undo actions, redo actions, and delete and recover in Word, PowerPoint and Google Apps.

Standard 3: The student uses technology to communicate effectively and creatively.

Benchmark Code	Benchmark
CS.7.3.3.1	The student will use multiple tools and apply a variety of commands in Word, PowerPoint and Google Apps like formatting paragraphs, spacing between lines and characters, page breaks, spell check, insert symbols, date, time and comments; find and replace text, drop cap, bullets and numbers, indent paragraphs, insert borders, shading, header and footer, etc.
CS.7.3.3.2	The student will set page layouts in a document: margins, orientation, size, columns, etc.
CS.7.3.3.3	The student will review adding and setting sections, columns, tables and images, WordArt, Text Box and AutoShapes in Word, Power Point and Google Apps.
CS.7.3.3.4	The student will create, modify, and delete slides using an assistant, a template or a blank presentation in PowerPoint and Google Slides.
CS.7.3.3.5	The student will correctly use and describe the views in PowerPoint and Google Slides: Normal, Outline, Slide Sorter and Slide Show.
CS.7.3.3.6	The student will apply multimedia elements in the slides such as: sound, video, interactive images and background music.
CS.7.3.3.7	The student will review applying transition and animation effects to slides.

CS.7.3.3.8	The student will add action buttons and time intervals to control a slide show.
CS.7.3.3.9	The student will review customizing a publication's background, color, style, and will insert, delete and move slides in Power Point and Google Slides.
CS.7.3.3.10	The student will use and customize templates for Microsoft Word, Power Point, and Google Docs to create a variety of publications.

Strand 4: GRAPHICS

Standard 1: The student understands basic technology operations and concepts.

Benchmark Code	Benchmark
CS.7.4.1.1	The student will review creating and editing free forms and images with Microsoft Paint and Drawings in Google Drive.

Strand 5: INTERNET/NETWORKING

Standard 1: The student understands basic technology operations and concepts.

Benchmark Code	Benchmark
CS.7.5.1.1	The student will describe internet, its origins, evolution and characteristics.
CS.7.5.1.2	The student will describe a navigator, identify its elements and differentiate navigator's types.
CS.7.5.1.3	The student will describe a search tool.
CS.7.5.1.4	The student will identify and use different search engines to surf the web.
CS.7.5.1.5	The student will use effective ways to search for information in Google, by using specific symbols to precise, include or exclude information ("", +, -,) or specify the file type (.pdf, .docx, etc.)
CS.7.5.1.6	The student will search for information on the internet.
CS.7.5.1.7	The student will correctly use Google tools such as: Google translator, calculator, search, etc.
CS.7.5.1.8	The student will play educational games.

Standard 2: The student uses technology responsibly and ethically.

Benchmark Code	Benchmark
CS.7.5.2.1	The student will define Netiquette and describe its importance for proper communication on the internet.
CS.7.5.2.2	The student will demonstrate proper use of a cellphone, texting, email, and file sharing.
CS.7.5.2.3	The student will demonstrate the understanding of the T.H.I.N.K. philosophy (is it True? is it Helpful? is it Inspiring? is it Necessary? is it Kind?) and employ it correctly.
CS.7.5.2.4	The student will understand the risks and consequences of inappropriate use of electronic devices including cell phones and tablets for communication in the forms of images, videos, messages, etc.

Standard 3: The student uses technology to communicate effectively and creatively.	
Benchmark Code	Benchmark
CS.7.5.3.1	The student will identify and describe internet tools to communicate by email or chat in Google Hangouts.
CS.7.5.3.2	The student will correctly use a Google email account.
CS.7.5.3.3	The student will be able to effectively use internet to work on collaborative projects using Google Docs to create folders, create new files, upload/download files, share files and folders and edit a variety of file types.
CS.7.5.3.4	The student will effectively review applying permissions in Google docs to edit, view or comment while sharing a document.

Standard 4: The student uses technology for thinking, learning, and producing real world situations.	
Benchmark Code	Benchmark
CS.7.5.4.1	The student will describe and differentiate online education and academic program.
CS.7.5.4.2	The student will describe advantages and disadvantages of online education.
CS.7.5.4.3	The student will identify the software and hardware required to enroll in online courses.

Strand 6: MULTIMEDIA

Standard 3: The student uses technology to communicate effectively and creatively.	
Benchmark Code	Benchmark
CS.7.6.3.1	The student will develop a video using an electronic device (tablet, cellphone).
CS.7.6.3.2	The student will review creating multimedia presentations, adding multiple elements such as interactive pictures, video and audio.

Strand 7: SPREADSHEETS

Standard 1: The student understands basic technology operations and concepts.	
Benchmark Code	Benchmark
CS.7.7.1.1	The student will review key elements in Excel and Google Sheets.
CS.7.7.1.2	The student will describe the use of multiple menus and commands in Excel and Google Sheets.
CS.7.7.1.3	The student will review customizing the work area from Excel and Google Sheets by adding borders, background, text format, etc.
CS.7.7.1.4	The student will identify the elements of a spreadsheet, including: cells, rows (numbers), columns (letters), formula bar, etc.
CS.7.7.1.5	The student will review applying basic techniques with columns and rows: insert, delete, hide and show data.
CS.7.7.1.6	The student will review basic features such as: create new workbook, open a file, select, undo actions, redo actions, copy, cut, paste, save, delete and recover workbooks.
CS.7.7.1.7	The student will review basic math operations (addition, subtraction, multiplication, division) and identify their operators (+, -, *, /).

CS.7.7.1.8	The student will review the use of functions and formulas in Excel and Google Sheets.
CS.7.7.1.9	The student will identify and apply the mathematical operators hierarchy (P.E.M.D.A.S.).
CS.7.7.1.10	The student will apply cell formats (color, size, border, number format etc.) to cell values.
CS.7.7.1.11	The student will modify cells by using. merge cells, wrap text, etc. to improve the spreadsheet's appearance.
CS.7.7.1.12	The student will review the different types of charts in Excel and Google Sheets (pie, bar, column, etc.) and their components.
CS.7.7.1.13	The student will review creating charts in a spreadsheet.
CS.7.7.1.14	The student will modify elements of a spreadsheet chart.