

**Computer Applications Standards**

**9th Grade**

**Course Overview:** In this course students will learn basic skills in a variety of programs. The course will begin with a brief keyboarding and proofreading review, and quickly move into word processing skills, including formatting and basic features in Microsoft Word. The course then moves on the spreadsheet skills, including basic set up, formulas, creating charts, and skills using Microsoft Excel. The course will also feature a brief unit covering database skills using Microsoft Access. There will be a lesson using the Internet to locate information. Presentation skills will also be emphasized using basic guidelines for creating a PowerPoint presentation. The course will end with students learning a few very basic desktop publishing and video editing skills. The course will also cover IT terminology, MS Windows OS features, ethics, and organizational skills—using folders to organize and save files.

**Bold standards are essential standards that all students will learn as they complete the course.**

**Unit 1: Introduction to IT & File Management (15 days)**

**Description:** This unit begins with a review of the keyboard and assessment of keyboarding technique and speed. Students take a formatting pretest demonstrating current computer skills. Students will learn appropriate IT related terms for hardware and software and identify examples. One of the most important skills in this unit will be file management. Students will learn the pros and cons of various types of storage locations and the best ways to name files.

**Standards**

1. The students will demonstrate proper keyboarding technique and posture. (BIT.IT1.a)
2. The students will use correct fingers on all the alphabet/symbol keys learned—listed above. (BIT.IT1.a)
3. The students will develop a keying speed of 45 GWAM, improving speed and accuracy throughout the course. (BIT.IT1.a)
4. The students will use appropriate IT terminology in conversation. (BIT.IT2.a, BIT.IT2.e)
5. **The students will differentiate between storage locations. (BIT.IT2.f)**
6. **The students will identify proper file naming conventions. (BIT.IT2.a)**

**Unit 2: Word Processors (Microsoft Word/Google Docs) (35 days)**

**Description:** This unit introduces students to word processing toolbar features including: new, open, save, print, preview, spell check, cut, copy, paste, undo/redo, font, size, style, alignment, bullets, numbering, tables, charts, etc. Students will also be exposed to using shortcut keys including: control key combinations, home, end, page up, page down, function keys, etc. Students will demonstrate the use of drawing features including: order, rotate, group, text wrapping, shapes, lines, styles, text boxes, WordArt, diagrams, pictures, colors, effects, etc. Additionally, students will use word processing software to format a variety of professional business documents.

**Standards**

1. **The students will identify/use tools AND shortcuts on the Microsoft Word ribbon OR Google Docs menus. (BIT.BC5.a)**
2. The students will use a combination of tools (shapes, text, pictures, WordArt) to create a themed image. (BIT.IT1.b)
3. The students will format a business letter with a table and letterhead. (BIT.BC5.b, BIT.IT1.b)
4. The students will create an envelope and mailing labels. (BIT.IT1.b)
5. The students will format a report with a title page, references, tables of contents and footnotes. (BIT.IT1.b)
6. The students will develop a form letter using proper letter business letter format. (BIT.IT1.b)
7. The students will create a multicolumn newsletter utilizing infographics and advanced formatting techniques. (BIT.IT1.b)
8. The students will create a web page document in a word processor utilizing tables. (BIT.IT1.b)

**Unit 3: Spreadsheets (Microsoft Excel/Google Sheets) (20 days)**

**Description:** This unit introduces students to spreadsheet toolbar features including: new, open, sheets, rows, columns, cells, borders, shading, gridlines, printing, orientation, etc. Additionally students will learn to apply the correct formulas for different needs including: summation, subtraction, multiplication, division, average, minimum, maximum, and if/then statements. Students will also learn how to apply fill features, view cell formulas, and to use the spreadsheet as a database to sort information alphabetically/numerically, etc. Finally, students will use data to create and format a variety of charts and graphs.

**Standards**

1. **The students will utilize a variety of formulas in a spreadsheet to auto complete calculations. (BIT.IT1.c)**
2. The students will demonstrate how to sort data in a spreadsheet. (BIT.IT1.c)
3. The students will create a variety of graphs in a spreadsheet to best represent the selected data. (BIT.IT1.c)
4. The students will format a spreadsheet. (BIT.IT1.c)

**Unit 4: Presentation Software (Microsoft PowerPoint/Google Slides) (10 days)**

**Description:** This unit will teach students the basic guidelines for creating a professional presentation—the rule of 7, contrast, readable fonts, the number of graphics, etc. Students will demonstrate the ability to change backgrounds, set up slide layouts, change text, insert graphics, add animations and transitions, add multimedia components (audio and video) and print slides in various forms.

Finally, students will give a presentation about a predetermined topic following speech and slide guidelines.

**Standards**

1. **The students will follow appropriate guidelines for creating a business professional presentation. (BIT.IT1.d, BIT.BC1.b)**
2. The students will determine which types of multimedia are most appropriate to use in a presentation for a given setting. (BIT.IT1.d, BIT.BC1.b, BIT.BC1.c)
3. The students will create a multimedia presentation utilizing a variety of tools in a presentation software effectively integrating text, graphics, and multimedia elements. (BIT.IT1.d, BIT.DGC3.c, BIT.BC1.b)
4. The students will give a presentation following specified criteria related to speech elements. (BIT.BC1.a, BIT.BC1.b, BIT.BC1.c)
5. The students will effectively utilize proofreading tools to edit a presentation. (BIT.BC5.a)

**Unit 5: Databases (Microsoft Access) (2 days)**

**Description:** In this brief introductory lesson students will learn how to create a simple table, query, form, and report using a database as a tool to store information.

**Standards**

1. The students will discuss the purposes of database software. (BIT.IT3.a, BIT.IT3.b)
2. The students will create a simple database table and run a query and a report. (BIT.IT3.a, BIT.IT3.b)

**Unit 6: Using the Internet & Digital Citizenship (3 days)**

**Description:** In this brief lesson students will learn advanced searching techniques and how to use Boolean logic/operators to increase the precision on an online search. Students will be able to identify the most reliable sources of information online and will also learn good habits for “living online”.

**Standards**

1. The students will use Boolean operators (or advanced search techniques) to limit the number of results returned in an online search and identify which results will provide the most reliable information. (BIT.BC4.a, BI.BC4.b)
2. The students will create a list of appropriate, safe and acceptable online behaviors. (BIT.BC3.a, BIT.BC3.b, BIT.BC3.c, BIT.BC3.d)

**Unit 7: Desktop Publishing (5 days)**

**Description:** In this brief unit students will be exposed to basic desktop publishing skills. Students will have the choice of using a variety of programs from the Adobe Suite to Google Apps to Microsoft Publisher. Students will work on creating documents will advanced formatting including: fliers, letterhead, business cards, posters, calendars, brochures, programs, newsletters, greeting cards and invitations.

**Standards**

1. The students will use desktop publishing software to produce a publication(s) of their choice using a variety of elements. (BIT.DGC1.a, BIT.DGC1.b)