

Computer Applications (High School)

Computer Applications provides members with the opportunity to demonstrate knowledge around competencies in different applications in computing. It aims to inspire members to learn about the effective application of the computer to facilitate handling of business information. This competitive event consists of an objective test and production test.

Event Overview

Division: High School **Event Type:** Individual **Event Category:** Production

Event Elements: Objective Test, 100-multiple choice questions (breakdown of question by

competencies below) and Production Test

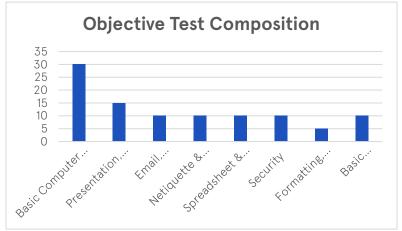
Objective Test Time: 50 minutes Production Test Time: 2 hours

NACE Connections: Career & Self-Development

Objective Test Competencies

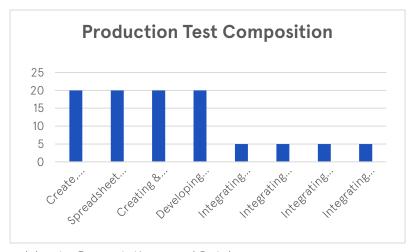
Basic Computer Terminology and Concepts

- Presentation, Publishing, and Multimedia Applications
- Spreadsheet and Database Applications
- Basic Application Knowledge and Word Processing
- E-mail, Integrated, and Collaboration Applications
- Netiquette and Legal Issues
- Security
- Formatting, Grammar,
 Punctuation, Spelling, and
 Proofreading



Production Test Competencies

- Create, Search, and Query Databases
- Spreadsheet Functions and Formulas
- Creating and Formatting with Word Processing
- Developing Slides & Presentations
- Integrating Databases and Word Processing
- Integrating Spreadsheets and Word Processing
- Integrating Presentations and Spreadsheets
- Integrating Word Processing, Spreadsheets, Presentations, and Databases





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District/Region/Section

Objective and production testing will take place prior to the District Leadership Conference. Production testing information will be emailed to the local adviser after registration closes. The local adviser will be responsible for submitting the production test as a prejudge asset in the registration system. Check the Call to Conference for your District for specific instructions and deadlines.

State

Production testing will take place prior to the State Leadership Conference. Production testing information will be emailed to the local adviser after registration closes. The local adviser will be responsible for submitting the production test as a prejudge asset in the registration system.

Any events with an objective test will have an online testing component on-site at the State Leadership Conference. See below for list of required competition items; Colorado FBLA requires the same items set by National FBLA at our State Leadership Conference.

National

Required Competition Items

	Items Competitor Must Provide	Items FBLA Provides
Objective Test	 Sharpened pencil Fully powered device for online testing Conference-provided nametag Photo identification Attire that meets the FBLA Dress Code 	 One piece of scratch paper per competitor Internet access Test login information (link & password)
Production Test	 Fully powered device for production test Conference-provided nametag Photo identification Attire that meets the FBLA Dress Code 	 Production test tasks Internet access for submission

Important FBLA Documents

• Competitors should be familiar with the Competitive Events <u>Policy & Procedures Manual</u>, <u>Honor Code</u>, <u>Code of Conduct</u>, and <u>Dress Code</u>.

Eligibility

- FBLA membership dues are paid by 11:59 pm Eastern Time on March 1 of the current program year.
- Members may compete in an event at the National Leadership Conference (NLC) more than once if they have not previously placed in the top 10 of that event at the NLC. If a



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member places in the top 10 of an event at the NLC, they are no longer eligible to compete in that event.

- Members must be registered for the NLC and pay the national conference registration fee to participate in competitive events.
- Members must stay in an official FBLA hotel block to compete.
- Each state may submit four entries per event.
- Each member can only compete in one individual/team event and one chapter event (American Enterprise Project, Community Service Project, Local Chapter Annual Business Report, Partnership with Business Project).
- Each competitor must compete in all parts of an event for award eligibility.
- Picture identification (physical or digital: driver's license, passport, state-issued identification, or school-issued identification) matching the conference nametag is required when checking in for competitive events.
- If competitors are late for their assigned production and/or objective test time, they will be allowed to compete with a five-point penalty until such time that results are finalized, or the accommodation would impact the fairness and integrity of the event.
- Some competitive events start in the morning before the Opening Session of NLC. The schedules for competitive events are displayed in the local time of the NLC location. Competitive event schedules cannot be changed.

Recognition

• The number of competitors will determine the number of winners. The maximum number of winners for each competitive event is 10.

Event Administration

- This event has two parts: Objective Test and Production Test
- Objective Test
 - o The objective test is administered online at the NLC.
 - o No reference or study materials may be brought to the testing site.
 - No calculators may be brought into the testing site; online calculators will be provided through the testing software.
 - Competitors may flag questions within the online testing platform for the Competitive Events Committee to review before finalizing results at the NLC.
- Production Test
 - o The production test is administered online at the NLC.
 - The production test is a set of tasks based on the competencies for the competitor to complete.
 - o Calculators cannot be used on the production test.
 - o The Format Guide, found on the Competitive Events website (www.fbla.org) can be used for the production test.

Scoring

• The rating sheet will be released with the production test.



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- Production Test is 85% of the total score. If there is more than one section of competitors, the production test scores will be normalized (using standard deviation) and the normalized score is 85% of the total score.
- Objective Test is 15% of the total score.
- The Production Test score will be used to break a tie.

Americans with Disabilities Act (ADA)

• FBLA meets the criteria specified in the Americans with Disabilities Act for all competitors with accommodations submitted through the conference registration system by the registration deadline.

Penalty Points

- Competitors may be disqualified if they violate the Code of Conduct or the Honor Code
- Five points are deducted if competitors do not follow the Dress Code or are late to the testing site.

Electronic Devices

• Unless a pre-approved accommodation is in place, all cell phones, smart watches, and headphones must be turned off and put away before competition begins. Any visibility of these devices will be considered a violation of the Honor Code.



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Study Guide: Competencies and Tasks

- A. Basic Computer Terminology and Concepts
 - 1. Use and understand basic computer terminology.
 - 2. Explain the purpose, operation, and care of hardware components.
 - 3. Install, configure, optimize, and upgrade operating software and application software on computers and other portable devices.
 - 4. Identify tools, diagnostic procedures, and troubleshooting techniques for components and operating systems for personal computers, laptops, and portable devices
 - 5. Apply basic commands and navigate the operating system including such things as creating backups and determining memory and disk space.
 - 6. Input data and commands using peripherals (keyboard, light pen, mouse, scanner, and voice recognition).
 - 7. Manage file storage through the use of file management techniques such as copy, move, store, rename, retrieve, save, delete, compress, decompress, and create/manipulate folders and directories.
 - 8. Use a browser to search and navigate hypertext documents and to download files.
 - 9. Use Internet search engines and understand their advantages and disadvantages.
 - 10. Evaluate the accuracy, relevance, and comprehensiveness of information retrieved from the Web.
 - 11. Identify the different parts of a browser window (pull-down menus, toolbar, address box, status bar, scroll bar, close button, maximize and minimize buttons, and title bar).
 - 12. Analyze emerging technologies used by business and industry.
 - 13. Identify the fundamental principles and basic concepts of installing, configuring, optimizing, and upgrading printers and scanners.
 - 14. Identify tools and diagnostic procedures to troubleshoot printers and scanners and perform basic printer functions (load paper, change cartridge, repair paper jam, etc.).
 - 15. Identify and use appropriate resources to obtain assistance (Help menu, manuals, Web site).
 - 16. Evaluate advantages and disadvantages of various processing, storage, retrieval, and transmission technologies.
 - 17. Identify the fundamental principles and basic concepts of networks including installing, configuring, optimizing, and upgrading.
 - 18. Identify network devices including network connectivity hardware and describe their functions.
- B. Presentation, Publishing, and Multimedia Applications
 - 1. Identify components of a presentation program (layout views, slide, toolbars, and dialog box).
 - 2. Use presentation software to create a presentation with multiple types of slides incorporating effective use of text, graphics, fonts, builds, preset animation, and transitions.
 - 3. Use presentation software to include diagrams, color and graphic modifications, animation schemes, custom backgrounds, action buttons, hyperlinks, sound, video, and speaker notes.
 - 4. Deliver presentation with supporting materials.



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- 5. Apply desktop publishing principles to create, design, edit, and produce documents using text and graphics.
- 6. Create visual communications involving text and graphic data (brochures, pamphlets, fliers, and newsletters).
- 7. Utilize graphic manipulation techniques (wrap text, Word Art) to insert visual aids into document.
- 8. Create visual communications involving artwork (freehand drawing applications, clip art, digitized images).
- 9. Save cropped or modified images in different file formats.
- 10. Demonstrate input of data and graphics from various sources (Web, scanner, digital camera).
- 11. Design, create, edit, and format web pages incorporating various types of media (text, image, video, and audio).
- 12. Apply multimedia software to create multimedia projects.

C. Spreadsheet and Database Applications

- 1. Define spreadsheet terminology (cell, row, column, range, label, value, formula, function, worksheet, relative, absolute, and legend).
- 2. Create, edit, save, and print worksheets using spreadsheet commands, functions, and formulas.
- 3. Design and enhance worksheets by inserting, deleting, moving, and copying columns and rows.
- 4. Use electronic spreadsheet to create, save, print, modify, and obtain graphs and appropriate charts with titles and legends.
- 5. Rename, rearrange, and manipulate multiple worksheets in a workbook.
- 6. Use an electronic spreadsheet program to enhance the appearance of a spreadsheet by changing fonts, foreground and background colors, and centering text across columns.
- 7. Define database terminology (query, DBMS, field, record, file, and data type).
- 8. Plan and create a database.
- 9. Enter data and edit fields and records for a particular situation.
- 10. Query, sort, prioritize, merge, and retrieve data from databases.
- 11. Use a database management program to create, format, maintain, and print reports and tables from a simple relational database.

D. Basic Application Knowledge and Word Processing

- 1. Use help features and reference materials to learn software and solve problems.
- 2. Create, save, and retrieve word processing files.
- 3. Use word processing software to create, format, and edit business documents such as letters, memoranda, reports, tables, and resumes in mailable form.
- 4. Demonstrate the use of character formatting features (bold, underline, italics, font styles and sizes, superscript, and subscript).
- 5. Demonstrate the use of paragraph formatting features (tabs, indentations, line spacing, and enumerated items).
- 6. Demonstrate the use of page formatting features (margins, justification, vertical placement, orientation, page breaks, headers, and footers).
- 7. Demonstrate document editing skills using spell/grammar check, thesaurus, search/replace, and other document properties.
- 8. Create documents using mail merge features.
- 9. Create and use macros and templates.



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E. E-mail, Integrated, and Collaboration Applications

- 1. Produce documents integrating word processing, spreadsheet, and related charts, database files, reports, and presentation files.
- 2. Use an electronic mail program to send and receive electronic mail including an attachment.
- 3. Manage personal schedule and contact information to include distribution lists.
- 4. Research privacy issues related to e-mail accounts and dangers of receiving e-mails from unknown sources.
- 5. Identify inappropriate actions related to forwarding and mass e-mailings.
- 6. Demonstrate skills using word processing, spreadsheet, database, and presentation software to complete workgroup collaboration to include inserting and reviewing comments.
- 7. Use collaborative/groupware applications to manage shared schedule, contact information, shared files, online information, instant messaging, or virtual meetings.

F. Netiquette and Legal

- 1. Explain concepts related to copyright rules and regulations and public domain (images, music, video, and software).
- 2. Demonstrate a basic understanding of issues regarding software copyright, software licensing, and software copying.
- 3. Discriminate between ethical and unethical uses of computers and information.
- 4. Identify potential abuse and explain the consequences of illegal and unethical use of information technologies (piracy, illegal downloading, licensing infringement, and inappropriate use of software, hardware, and mobile devices).
- 5. Apply netiquette skills to create, send, receive, and reply to electronic communications, including e-mail and telephone.

G. Security

- 1. Identify security issues related to computer hardware, software, and data use.
- 2. Explain concepts of security, integrity, courtesy, and confidentiality related to information and communication systems.
- 3. Adhere to privacy, safety and security policies and legislation (acceptable use policy, Web page policies, computer crime, fraud, and abuse).
- 4. Demonstrate an awareness of computer viruses and basic understanding of ways to protect a computer from viruses.
- 5. Diagnose and troubleshoot hardware, software, and data security issues.
- 6. Perform preventative maintenance techniques for computer security.

H. Formatting, Grammar, Punctuation, Spelling, and Proofreading

- 1. Apply basic formatting procedures and manipulate data in letters, reports, simple tables, spreadsheets, graphics, graphs and charts, and databases.
- 2. Use correct grammar, spelling, and punctuation when producing documents.
- 3. Utilize appropriate functions and references for spelling, grammar, and proofreading.
- 4. Use appropriate capitalization, punctuation, number expression rule, and editing/proofreading skills to produce mailable documents.



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Computer Applications Rating Sheet High School

Expectation Item	Not Demonstrated	Below Expectations	Meets Expectations	Exceeds Expectations	Points Earned
Databases: Table created correctly Data entered accurately	0 points	1-6 points	7-8 points	9-10 points	
Databases: Report properly created Report formatted per instructions	0 points	1-6 points	7-8 points	9-10 points	
Spreadsheets: Data entered correctly Data formatted properly	0 points	1-6 points	7-8 points	9-10 points	
Spreadsheets: Advanced features created correctly	0 points	1-3 points	4-5 points	6 points	
Spreadsheets: Proper formulas and functions with correct output	0 points	1 point	2-3 points	4 points	
Word Processing: Correct formatting	0 points	1-6 points	7-8 points	9-10 points	
Word Processing: Advanced features created correctly	0 points	1-3 points	4-5 points	6 points	
Word Processing: Copy entered correctly	0 points	1 point	2-3 points	4 points	
Presentation: Slides formatted properly	0 points	1-6 points	7-8 points	9-10 points	
Presentation: Advanced features created correctly	0 points	1-3 points	4-5 points	6 points	
Presentation: Slides created correctly	0 points	1 point	2-3 points	4 points	
Integration: Databases & Word Processing	0 points	1-2 points	3-4 points	5 points	
Integration: Spreadsheets & Word Processing	0 points	1-2 points	3-4 points	5 points	
Integration: Presentations & Spreadsheets	0 points	1-2 points	3-4 points	5 points	
Integration: Word Processing, Spreadsheets, Presentations, & Databases	0 points	1-2 points	3-4 points	5 points	
	ı			Total (100 points)	
Name(s):					
School:					
Judge Signature:					Date:

Comments: