

Spreadsheet Applications

Spreadsheet Applications provides members with the opportunity to demonstrate knowledge around competencies in converting data to information in business. This competitive event consists of an objective test and production test. It aims to inspire members to learn about the skills for spreadsheet development.

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: 60 minutes

NACE Connections: Career & Self-Development

Equipment Competitor Must Provide: Pencil for Objective Test, Computer for Production

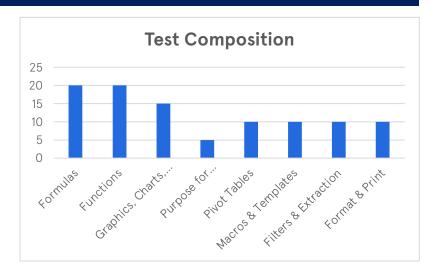
Test

Equipment FBLA Provides: One piece of scratch paper per competitor for Objective Test,

Production Test Tasks

Competencies

- Formulas
- Functions
- Graphics, Charts, and Reports
- Pivot Tables and Advanced Tools
- Macros and Templates
- Filters and Extraction of Data
- Format and Print Options
- Purpose for Spreadsheets



Production Test Competencies

- Basic Mathematical Concepts
- Data Organization Concepts
- Creating Formulas
- Functions
- Generate Graphs (for analysis purposes)
- Pivot Tables
- Create Macros
- Filter and Extract Data



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Section

- Each chapter may enter a maximum of three (3) members in each event.
- In each section, members placing in the **top five (5) with a final score of at least 30** will represent their section at the State Leadership Conference.

State

- The top four (4) places in state competition will represent California at the National Leadership Conference.
- Middle school members who place in the top four **cannot** compete at the National Leadership Conference, per national guidelines.

California FBLA Guidelines (Section and State)

- Registration: The local chapter adviser must register competitors in Blue Panda AND complete the Production Event Request Form by 4:59 p.m. Pacific on December 22, 2023 (section) and 4:59 p.m. Pacific on February 16, 2024 (state). The section and state conference guides will include a link to the form.
- <u>Test Proctors:</u> Production tests must be proctored and a test proctor must be specified on the Production Event Request Form. This person must be a certificated teacher or a school staff member. This can neither be an adviser nor a parent. You may have more than one test proctor.
- Reference Materials and Calculators: Competitors in Computer Applications and Word Processing may use the Format Guide on the production test. No materials are allowed for Database Design & Applications or Spreadsheet Applications. Calculators cannot be used on any of the production tests.
- <u>Allotted Time:</u> Time must run continuously and cannot be broken into multiple sessions. Once an event has begun, the clock may only be stopped for repair of technical problems outside the members' control.
- <u>Test Submission:</u> Completed tests must be uploaded electronically for grading by 4:59 p.m. Pacific on:
 - January 12, 2024 (Northern and Southern sections)
 - January 19, 2024 (Bay, Central, Gold Coast and Inland sections)
 - March 8, 2024 (state)
- Academic Integrity: Per the National Center, documents produced for this event must be prepared by the competitor without help from the adviser or any other person. Also, all tests and any materials printed during the testing session must be destroyed immediately after documents have been uploaded for grading. The online competitor and proctor certification forms must be submitted with the tests. Missing certification forms will result in disqualification.
- Objective Test Guidelines:
 - 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.



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- All electronic devices such as cell phones and smart watches must be turned off before competition begins.
- o Bring a pencil to the testing site.

• <u>Scoring:</u>

- Production Tests: A panel of judges will review the production tests. All decisions of the judges are final. The production test score will represent 85% of the final score. The production score will be used to break a tie.
- o Objective Tests: The objective test score will represent 15% of the final score.

National

Policy and Procedures Manual

• Competitors should be familiar with the Competitive Events Policy & Procedures Manual, found on the Competitive Events page on www.fbla.org.

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 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 in order to participate in competitive events.
- Members must stay in an official FBLA hotel to be eligible 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).
- Only competitors are allowed to plan, research, and prepare their production tests.
- 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) is required when checking in for competitive events.
- If competitors are late for an objective test, they will be allowed to compete until such time that results are finalized, or the accommodation would impact the fairness and integrity of the event. Competitive event schedules cannot be changed. Competitive events start in the morning before the Opening Session of the NLC.

Recognition

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

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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.
 - All electronic devices such as cell phones and smart watches must be turned off before competition begins.
- Production Test
 - Submission Deadline: An accessible link to all the tasks must be uploaded in the conference registration system by May 14, 2024
 - The production test is administered and proctored by an adult at a designed school-site prior to the NLC. Administration procedures for the production test are determined by the state chair/adviser.
 - The production test is a set of tasks based on the competencies for the competitor to complete.
 - o Documents produced for this event must be prepared by the competitor without help from the adviser or any other person.
 - o Calculators cannot be used on the production test.

Scoring

- The rating sheet will be released with the production test.
- Production Test 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 Competitive Event Guidelines 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

• All electronic devices such as cell phones and smart watches must be turned off before competition begins.

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Study Guide: Objective Test Competencies and Tasks

A. Formulas

- 1. Create basic formulas with addition, subtraction, multiplication, and division.
- 2. Use SUM, MIN, MAX, COUNT, PMT, IF and AVERAGE functions while completing a spreadsheet template.
- 3. Use advanced functions/formulas (payment, future, value, and statistical).
- 4. Use and change mathematical functions and formulas, including absolute and relative cell references and what-if analysis.
- 5. Construct arithmetic formulas to solve typical business-oriented problems.
- 6. Use Lookup Functions and tables (Hookup or VLOOKUP).
- 7. Create named ranges to be used in formulas and printing.
- 8. Evaluate formulas and locate invalid data and formulas.
- 9. Use cells from other worksheets inside a formula.
- 10. Use the fill handle with formulas.

B. Functions

- 1. Demonstrate the functions and terminology of spreadsheet software.
- 2. Open, save, print, and close a spreadsheet.
- 3. Design, create, and edit spreadsheets using appropriate inputting, editing, and formatting skills.
- 4. Navigate and enter values, labels, and dates within a worksheet.
- 5. Demonstrate locking and freezing features.
- 6. Use wrap text and fill alignment features to make cell entries.
- 7. Import data from text files (insert, drag, and drop) and other applications.
- 8. Export data to other applications.
- 9. Create, edit, and remove a comment.
- 10. Apply and remove worksheet and workbook protections and security settings.
- 11. Track changes (highlight, accept, and reject).
- 12. Insert headers and footers in a spreadsheet.
- 13. Manipulate multiple worksheets in a workbook.
- 14. Incorporate spreadsheets in word processing documents.
- 15. Design and implement a spreadsheet project which includes multiple, integrated spreadsheets.
- 16. Use help features and reference materials to learn software and solve problems.

C. Graphics, Charts, and Reports

- 1. Create and modify charts and graphs to visually represent data.
- 2. Import graphics elements in spreadsheet.
- 3. Change colors and apply spot color to graphics and text.
- 4. Add text boxes.
- 5. Edit, resize, crop, and manipulate copy and graphics.
- 6. Enhance and format charts.
- 7. Create embedded charts.
- 8. Add and format chart arrows.
- 9. Explode pie charts.
- 10. Create and format information in reports.
- 11. Create advanced reports.

D. Pivot Tables and Advanced Tools

1. Describe use of a pivot table.



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- 2. Create a pivot table.
- 3. Use Pivot Table auto format.
- 4. Trace errors (find and fix errors.)
- 5. Link spreadsheet data.
- 6. Link workbooks.
- 7. Embed objects in spreadsheets.

E. Macros and Templates

- 1. Create, record, edit, and run/apply spreadsheet macros.
- 2. Design, create, and edit a template for application.
- 3. Add a chart to the template.
- 4. Save a worksheet as a template.
- 5. Create a workbook from a template.

F. Filters and Extraction of Data

- 1. Sort and filter spreadsheet data for specific information.
- 2. Sort a list (ascending, descending, etc.).
- 3. Search a list by more than one criterion.
- 4. Search a list by using AutoFilter.
- 5. Search a list using custom filters and operators.
- 6. Create filters using OR and AND.
- 7. Create filters using wildcards.
- 8. Filter by numerical values, text, dates, etc.
- 9. Extract useful information using search queries.
- 10. Analyze and edit data.
- 11. Use built-in statistical analysis features of spreadsheet software.
- 12. Import and export data.

G. Format and Print Options

- 1. Format cell contents (font, color, alignment, shading, decimal).
- 2. Insert, delete, copy, and paste cells.
- 3. Enhance a spreadsheet by using formatting features (column width, justification, and values).
- 4. Align the data and apply borders and/or shading to a cell or a range of cells.
- 5. Apply number formats (accounting, currency, and number).
- 6. Apply automatic formatting to ranges.
- 7. Apply conditional formats.
- 8. Create and modify custom data formats.
- 9. Adjust page setup for landscape or portrait layout.
- 10. Use print preview to view, proofread, and edit the spreadsheet.
- 11. Print designated areas of the spreadsheet with or without gridlines.
- 12. Use print scaling options (shrink to fit).
- 13. Set print specifications for formulas, graphs, worksheets, etc.

H. Purpose for Spreadsheets

- 1. Explain spreadsheets and various options.
- 2. Differentiate among a variety of spreadsheet programs.
- 3. Organize a problem for solutions with spreadsheet software.
- 4. Plan and create a spreadsheet from data designed for a specific purpose.
- 5. Analyze, interpret, and present data.
- 6. Manipulate spreadsheet data to answer "what if" questions.