



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

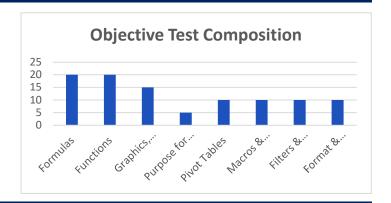
Event Elements: Objective Test, 100-multiple choice questions and Production Test

Objective Test Time: 50 minutes **Production Test Time:** 60 minutes

NACE Connections: Career & Self-Development

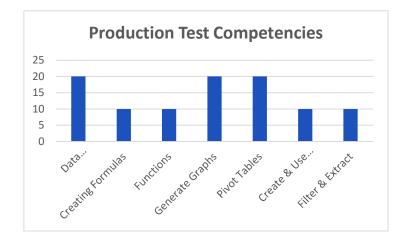
Objective Test Competencies

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



Production Test Competencies

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



Region

Each chapter may submit one (1) competitor. This event is designated *objective test* event since all components are conducted at the school and there is no conflict with performance event scheduling.

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State

Each region may submit two (2) competitors for state competition.

National

Required Competition Items

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

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 school year or prior to regional competition, whichever comes first.
- 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 RLC/SLC/NLC and pay the conference registration fee to participate in competitive events.
- Members must stay in an official FBLA hotel block to compete.
- Each chapter may submit one entry; each region may submit two entries; each state may submit four entries.
- Each competitor 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) at the national level. RLC/SLC competitors may compete in one objective test/one performance event/ and one chapter event.
- 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.

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- 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/NLC; 5/SLC; 3/RLC.

Event Administration

- This event has two parts: Objective Test and Production Test
- Objective Test
 - The objective test is administered online at the RLC/SLC/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.
- Production Test
 - The production test is administered school-site testing for RLC/SLC; 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.

Scoring

- The rating sheet will be released with the production test.
- 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.
- All announced results are final upon the conclusion of the RLC/SLC/NLC.

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: 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.
- 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.
- 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.

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- Create and format information in reports.
- 11. Create advanced reports.

D. Pivot Tables and Advanced Tools

- 1. Describe use of a pivot table.
- 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).



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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.





Spreadsheet Applications Rating Sheet

| Expectation Item | Not Demonstrated | Below Expectations | Meets Expectations | Exceeds Expectations | Points Earned |
|---|---------------------|-----------------------|--------------------|-------------------------|------------------|
| Content | | 1 | | | |
| Data Organization Concepts: Copy entered correctly | 0 points | 1-2 points | 3-4 points | 5-6 points | |
| Data Organization Concepts: Correct formatting | 0 points | 1-3 points | 4-6 points | 7 points | |
| Data Organization Concepts: Correct results & formulas | 0 points | 1-3 points | 4-6 points | 7 points | |
| Creating Formulas: Correct formulas | 0 points | 1-2 points | 3-4 points | 5 points | |
| Creating Formulas: Correct results | 0 points | 1-2 points | 3-4 points | 5 points | |
| Functions: Correct function | 0 points | 1-2 points | 3-4 points | 5 points | |
| Functions: Correct results | 0 points | 1-2 points | 3-4 points | 5 points | |
| Generate Graphs: Graph created correctly | 0 points | 1-3 points | 4-6 points | 7-8 points | |
| Generate Graphs Correct data set | 0 points | 1 point | 2 points | 3 points | |
| Generate Graphs: Correct formatting | 0 points | 1-3 points | 4-7 points | 8-9 points | |
| Pivot Tables: Pivot table created correctly | 0 points | 1-3 points | 4-6 points | 7-8 points | |
| Pivot Tables: Correct data set | 0 points | 1 point | 2 points | 3 points | |
| Pivot Tables: Correct formatting | 0 points | 1-3 points | 4-7 points | 8-9 points | |
| Create & Use Macros: Macro created correctly | 0 points | 1-2 points | 3-4 points | 5 points | |
| Create & Use Macros: Macro ran successfully | 0 points | 1-2 points | 3-4 points | 5 points | |
| Filter and Extract Data: Filter created correctly | 0 points | 1-2 points | 3-4 points | 5 points | |
| Filter and Extract Data: Data extracted correctly | 0 points | 1-2 points | 3-4 points | 5 points | |
| | | | | Total (100 points) | |
| Name(s): | | | | | |
| School: | | | | | |
| Judge Signature: | | | | | Date: |

Comments: