Applied Math for Culinary Management, an *individual* or *team event*, recognizes participants who use Family and Consumer Sciences skills to demonstrate the application of mathematical concepts in the culinary arts industry using the annual topic. Prior to competition, participants must prepare a ***file folder***, **oral presentation,** and ***visuals***. On site, participants take an **applied math test** and **respond to a case study**.

NEW JERSEY CORE CURRICULUM STANDARDS

L.11-12.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

L.11-12.6 Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

RI.11-12.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RI.11-12.7 Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

W.11-12.1d Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

W.11-12.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

SL.11-12.1c Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

SL.11-12.4 Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

SL.11-12.6 Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.

9.2.12.C.3 Identify transferable career skills and design alternate career plans.

9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.

9.3.HT-RFB.5 Research costs, pricing, market demands and marketing strategies to manage profitability in food and beverage service facilities.

CAREER READY PRACTICES

- ✓ Act as a responsible and contributing citizen and employee.
- ✓ Apply appropriate academic and technical skills
- ✓ Communicate clearly and effectively with reason
- ✓ Consider the environmental, social and economic impacts of a decision.
- ✓ Demonstrate creativity and innovation.
- ✓ Employ valid and reliable research strategies.
- ✓ Utilize critical thinking to make sense of problems and persevere in solving them.
- ✓ Model integrity, ethical leadership and effective management.
- ✓ Use technology to enhance productivity.
- ✓ Work productively in teams while using cultural global competencies

NATIONAL STANDARDS FOR FAMILY AND CONSUMER SCIENCES

8.4.7 Apply principles of Measurement, Portion control, Conversions, Food Cost Analysis and Control, Menu Terminology, and Menu Pricing to menu planning.

8.6.3 Apply pricing procedures in planning and forecasting profit and loss.

EVENT CATEGORIES
Occupational: grades 10 – 12

ELIGIBILITY
1. A chapter may register one (1) entry in each event category.
2. An entry is defined as one (1) participant or one (1) team comprised of a maximum of three (3) members.
3. An event category is determined by a member's grade in school and affiliation status.
4. Participation is open to any affiliated FCCLA member in grades 10 – 12.
5. Participants must be or have been enrolled in a culinary arts *occupational* training program (coursework for high school credit that concentrates in-class learning and/or on-the-job training in preparation for paid *employment*) or a Family and Consumer Sciences course preparing them for a career in culinary arts or hospitality careers (following a nationally recognized curriculum such as ProStart®). Programs which meet this requirement may be determined by the State Adviser. Students enrolled in general food and nutrition courses not preparing them for a career in Culinary Arts are ***not*** eligible.

PROCEDURES & REGULATIONS
1. The Applied Math for Culinary Management project must be developed and completed within a one-year span beginning July 1 and ending June 30 of the school year before the National Leadership Conference.

2. The Applied Math for Culinary Management project must be planned and prepared by the participant(s) only. Supporting resources are acceptable as long as participants are coordinating their use and resources are cited appropriately verbally and/or in print during the presentation to avoid false credit for unoriginal or non-participant work.

3. At a specific time prior to the scheduled presentation, participant(s) will be given thirty (30) minutes to complete the twenty (20)-question written test portion of the event. The test results will be factored into the entry's final score. Check the State Leadership Conference Program for the time and location.

4. Following the test, the participant(s) will be given ten (10) minutes to complete the case study. The completed case study will be given to evaluators prior to the oral presentation.

5. Each entry must submit a *file folder* with required documents at the designated location and specified time of the Applied Math for Culinary Management Test and Case Study.

6. Each entry will have five (5) minutes to set up for the event. Other persons may not assist.

7. The oral presentation **may be up to five (5) minutes** in length.

8. If audio or audiovisual recordings are used, they are limited to a (1) minute playing time during the presentation.

9. Following the presentation, evaluators will have the opportunity to ask questions of the participant.

10. Evaluators will use the rating sheet to score and write comments for each entry.

11. A table and blank note cards for the preparation of the case study response will be provided. Participants must bring all other necessary supplies. Participants may bring a calculator, but not a mobile device with a calculator app, for the case study. Wall space, electrical outlets/equipment, and wireless internet connection will not be available.

12. Spectators may not observe any portion of this event.

13. Two (2) individuals/teams may be chosen from each event category to represent New Jersey at the National Leadership Conference.

General Information					
Individual or Team Event	**Prepare Ahead of Time**	**Participant Set Up/ Prep Time**	**Maximum Oral Presentation Time**	**Equipment Provided**	**Electrical Access**
Individual or Team	File Folder, Visuals, Oral Presentation	5 minutes for set up/ 10 minutes for case study	5 minutes for oral presentation/	Table	Not provided

Presentation Elements Allowed									
Audio	**Costumes**	**Easel(s)**	**File Folder**	**Large Newsprint Chart(s)**	**Portfolio**	**Props/ Pointers**	**Skits**	**Presentation Equipment**	**Visuals**
■		■	■	■		■		■	■

APPLIED MATH FOR CULINARY MANAGEMENT SPECIFICATIONS

Test

All participants will take the Applied Math for Culinary Management Test prior to the oral presentation. Participants will have thirty (30) minutes to complete the twenty (20) question test. Test questions may include multiple choice, true/false, or multi-step *problem-solving*.

File Folder

Participant(s) will submit one (1) letter-size *file folder* containing three (3) identical sets, with each set stapled separately, of the items listed below at the designated Applied Math for Culinary Management Test location at the State Leadership Conference. The file *folder* must be labeled (either typed or handwritten) in the top left corner with participant's name, school name, chapter name, event name (Applied Math for Culinary Management), and event category.

1- 8½" x 11" page	*Project Identification Page*	One 8½" x 11" page on *plain paper*, with no graphics or decorations; must include participant's name(s), chapter name, school, city, state, event name and title of project.
1- 8½" x 11" page	FCCLA *Planning Process* Summary Page	One 8½" x 11" page summarizing how each step of the *Planning Process* was used to develop the Applied Math for Culinary Management project. Each step is fully explained.
1 	Evidence of Online Project Summary Submission	Complete the online project summary form located on the "Surveys" tab of the FCCLA Portal, and include proof of submission in the *portfolio*.
1- 8½" x 11" page	Works Cited/ *Bibliography*	Use MLA or APA citation style to cite all references. Resources should be *reliable* and *current*.

Case Study

Participants will be given a written case study, based on the annual topic, to evaluate their understanding of the application of mathematical concepts in culinary arts management. The case study will be a common issue in the area of culinary arts management. Each individual or team will complete one (1) Applied Math for Culinary Management Case Study Form, which will be turned in to the evaluators prior to the oral presentation. Work will take place within the case study room/station with no spectators. No pre-written material is allowed. Participant(s) will be provided blank Case Study Forms that should be used to respond and relay the developed solution(s). After oral presentation, evaluators have the opportunity to ask participants questions about the case study responses.

Knowledge of Subject	Show evidence of knowledge and subject.
Appropriate Solution(s)	Present solution(s) which are feasible and suitable for the situation.

Oral Presentation
The oral presentation **may be up to five (5) minutes** in length and is delivered to evaluators. The presentation should illustrate the use of mathematics in culinary arts and must be based on the annual topic as listed below.

Organization/Delivery	Deliver oral presentation in an organized, sequential manner; concisely and thoroughly summarize research.
Knowledge of Subject Matter	Demonstrate thorough knowledge of culinary arts mathematics concepts.
Voice	Speak clearly with appropriate pitch, tempo and volume.
Body Language / Clothing Choice	Use appropriate body language including gestures, posture, mannerisms, eye contact, and appropriate handling of *visuals* or notecards if used. Wear appropriate clothing for the nature of the presentation.
Grammar / Word Usage / Pronunciation	Use proper grammar, word usage, and pronunciation.
Responses to Evaluators' Questions	Provide clear and concise answers to evaluators' questions regarding the case study and presentation. Questions are asked after the presentation.

Visuals/Props
Visuals/props may include posters, charts, slides, presentation software, video, etc. and may be used to illustrate or demonstrate *content*. Audio/visual recordings are limited to one (1) minute playing time.

Effectively Illustrate *Content*	The *visuals* chosen to present the culinary arts mathematics concepts are clear, concise, and visually appealing.
Use of *Visuals*	*Visuals* support, illustrate, or complement presentation.

2018-2019 TOPIC

Understanding and applying yield percent

Applied Mathematics for Culinary Management Rating Sheet

Name(s) of Participant(s) _____ School_____

Category: _____ Occupational

INSTRUCTIONS:

1. Before student presentation, evaluators must check the participants' portfolio using the criteria and standards in the guidelines. If there is a discrepancy over or under the required number of items, please complete the Point Deduction sheet as necessary.
2. Write the appropriate rating in the "Score" column. Points given may range between 0 and the maximum number indicated. Total the points and enter under "TOTAL SCORE". Make comments to help participants identify their strengths and areas for improvement. Use the back of the sheet if necessary.

Evaluation Criteria	Poor	Fair	Good	Very Good	Excellent	Score	Comments
TEST							
Test Results	0				20		
FILE FOLDER							
FCCLA Planning Process Summary	0-1	2	3	4	5		
Works Cited/Bibliography – Complete use of appropriate resources	0-1	2	3	4	5		
ORAL PRESENTATION							
Organization/Delivery	0-2	3-4	5-6	7-8	9-10		
Knowledge of Subject Matter – Evident and incorporated throughout the presentation	0-2	3-4	5-6	7-8	9-10		
Voice, Body Language, Grammar and Pronunciation	0-1	2	3	4	5		
Responses to Evaluators' Questions	0-1	2	3	4	5		
VISUALS							
Effectively Illustrates Content – Support and compliment the presentation	0-2	3-4	5-6	7-8	9-10		
Use of Visuals During Presentation – Presentation moves seamlessly between oral presentation and visuals	0-1	2	3	4	5		
CASE STUDIES							
Knowledge of Subject Matter – Using extensive amount of current data and knowledge	0-3	4-6	7-9	10-12	13-15		
Appropriate Solutions – Feasible with each action apparent and well communicated	0-2	3-4	5-6	7-8	9-10		

Total Score _____

Verification of Total Score (please initial)
Evaluator _____
Room Consultant _____
Lead Consultant _____

Circle Rating Achieved:

Gold: 90-100 Silver: 79-89 Bronze: 70-78