

Agricultural Technology and Mechanical Systems Career Development Event

New Jersey FFA Association
New Jersey Department of Agriculture
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In Cooperation with the New Jersey Department of Education

Purpose of Event

The Agricultural Technology and Mechanical Systems Career Development Event effectively prepares students with a strong knowledge base and the ability to comprehend the interaction of complex systems. Agricultural technology and mechanical systems is comprised of strong technical content and complimented by the development of practical, hands-on skills. Students with these skills and abilities are more competitive in the job market, receive financial awards, and are selected for advancement.

Common Core & State Core Curriculum Content Standards (CCCS)

Through Agriculture, Food, and Natural Resources Education, FFA helps students meet the Common Core Standards and State Core Curriculum Content Standards in various areas. The Agricultural Technology and Mechanical Systems Career Development Event teaches students about English Language Arts, Science, and 21st-Century Life and Careers standards. Some examples of how the Agricultural Technology and Mechanical Systems CDE is meeting these standards are:

Students will: Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

- Comprehension and critical analysis skills of Agricultural Education students are developed through identification and evaluation of mechanical problems and theory through media (slides, videos, and computer CD-ROM). [3.5 - Language Arts Literacy: Viewing and Media Literacy]

All students will understand that science is both a body of knowledge and an evidence-based, model-building enterprise that continually extends, refines, and revises knowledge.

- ❖ **(B.) Generate Scientific Evidence Through Active Investigations:** *Students master the conceptual, mathematical, physical, and computational tools that need to be applied when constructing and evaluating claims.*
 - Testing materials, such as calculations for fertilizer dilution and concentrations, stress the critical thinking, decision-making and problem-solving skills that are an integral part of the Agricultural Technology and Mechanical Systems CDE. [5.1 - Science: Science Practices – B. Generate Scientific Evidence Through Active Investigations]

All students who complete a career and technical education program will acquire academic and technical skills for careers in emerging and established professions that lead to technical skill proficiency, credentials, certificates, licenses, and/or degrees.

- Through the Agricultural Technology and Mechanical Systems CDE, students learn and apply skills necessary for successful careers in the industry. [9.4.A(4) – 21st Century Life and Careers: Careers and Technical Education – (A.) Agriculture, Food and Natural Resources Career Cluster – 4. Power, Structural and Technical Systems]

Rules of Event

All Career Development Events will follow the general rules, which are published in the NJ State FFA Activity Guide (7.000). This event has two (2) phases: Phase I - Written Exam; Phase II – Individual Activities (5). A chapter may have a team of three (3) or four (4). The top three (3) scores are used in determining the team's rank. For more information about this event, [click here](#) to consult the [National FFA Career Development Event Handbook](#).

Scoring for the New Jersey Event

(other scoring will occur on the national level)

Phase I - Written Exam - 50 points

Phase II – 5 Individual Activities 150 points (30 points each)

(at least one activity in each area will be conducted – machinery and equipment systems, electrical systems, energy systems, structural systems, & environmental and natural resource systems)

Team Total - 600 points Individual total – 200 points

[Click here to discover the Career Opportunities, SAE Opportunities and Proficiency Award Areas that correspond to the Agricultural Mechanics Career Development Event!](#)

Agricultural Technology and Mechanical Systems CDE Theme Rotational Pattern

2012	2013	2014	2015	2016
Materials Handling Systems	Processing Systems	Plant Production Systems	Integrated Pest Management	Animal Production Systems