

Dairy Cattle Evaluation

Academic Content Area: Mathematics – Grade 11

Career Development Event Content

1. Students will exhibit skills in observation, analysis, communication and team collaboration in dairy cattle management and evaluation.
2. Analyze individual cow production records to determine appropriate status for culling, breeding and other management decisions.
3. Students will rank a class of pedigrees as to their indication of the animal's ability to transmit superior production.
4. Five Holstein cows will be evaluated using the major traits recognized by the Holstein Association Linear Descriptive Traits Worksheet.
5. Students will evaluate six classes of dairy animals and place them according to type.
6. Students will provide oral reasons for three classes.

Related Academic Standards/Anchors

Objectives 1-6: 2.1.11.A; 2.2.11.A,B; 2.5.11.A,D

Connecting Examples: CDE Objectives and Standards/Anchors

Ex. 1 – Related to 2.1.11.A: Use operations (e.g., opposite, reciprocal, absolute value, raising to a power, finding roots, finding logarithms). **Students will use such skills while evaluating dairy management exercises, pedigrees, sire selection and herd record evaluation. For example, which herd currently has the lowest average genetic level of protein yield? Which herd produced the most energy-corrected milk per lactating cow in the month of September?**

Ex. 2 – Related to 2.2.11.B: Use estimation to solve problems for which an exact answer is not needed. **Students will use calculation to derive an estimated answer when evaluating pedigrees, sires and herds.**

Ex. 3 – Related to 2.5.11.A: Select and use appropriate mathematical concepts and techniques from different areas of mathematics and apply them to solving non-routine and multi-step problems. **Students must determine the appropriate mathematical concepts to be used in making calculations to which conclusions will be drawn.**

Dairy Cattle Evaluation

Academic Content Area: Reading, Writing, Speaking and Listening – Grade 11

Career Development Event Content

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4. Five Holstein cows will be evaluated using the major traits recognized by the Holstein Association Linear Descriptive Traits Worksheet.
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6. Students will provide oral reasons for three classes.

Related Academic Standards/Anchors

Objectives 1-6: 1.1.11.A,C,E,F; 1.2.11.A; 1.4.11.B,C; 1.6.11.A,C,D,E

Connecting Examples: CDE Objectives and Standards/Anchors

Ex. 1 – Related to 1.2.11.A: Read and understand essential content of informational texts and documents in all academic areas. **During preparation and execution of the career development event, students will need to read materials and gain an understanding of content read to utilize during competition.**

Ex. 2 – Related to 1.4.11.B: Write complex informational pieces (e.g., research papers, analyses, evaluations, essays). **Students will need to develop an informational piece through analysis of records.**

Ex. 3 – Related to 1.4.11.C: Write persuasive pieces. **Students will need to develop a justification for their placing of the cattle classes to be presented orally. They only have 15 minutes to prepare the justification and may need to write their stated position or opinion.**

Ex. 4 – Related to 1.6.11.D: Contribute to discussions. **Students will be working as a team during the herd record evaluation and will need to exhibit the following: relevant question asking, listen to and acknowledge contributions of others, facilitate total group, paraphrase and summarize.**