



Tennessee State Meats Evaluation and Technology

Objectives

The objectives of the National FFA Meats Evaluation and Technology Career Development Event are to:

- Develop employment skills for students who are interested in exploring or pursuing career opportunities in the meat animal industry.
- Assist the local agricultural education instructor in motivating students to become knowledgeable consumers of meat animal products and/or involved in the industry of meat animal marketing and merchandising.
- Develop high school students' analytical skills, critical thinking strategies and understanding of appropriate meat terminology.
- Develop high school students' abilities to evaluate meat animal products in order to optimize economic returns to producers and industry as well as to meet the needs of the consumer.

Develop cooperation and communication skills in high school students.

Event Rules

The complete rules, policies and procedures relevant to all National FFA Career and Leadership Development Events may be found in the [Guide to CDE and LDE Policies and Procedures](#).

Each team will be comprised of four members. All scores will be used to determine the total team score.

Participants will report to the team orientation meeting for instructions at the time and place indicated by state staff.

All participants are expected to be prompt at their stations throughout the event; no provision will be made for tardiness and will cause late participants to lose event points.

No conversation will be allowed between participants after the individual activities begin. Conversation among participants constitutes disqualification.

Participants and official judges are to make their placing and identifications without handling the exhibit.

Two-minute stand back time on placing classes will be utilized when applicable.

CLOTHING

Official dress is not required to be worn during the event.

Event Format

The event is comprised of the following activities:

- Individual activities may consist of written exam, retail meat cuts identification, beef quality and yield grading, evaluation classes and ten questions (from two of the evaluation classes).
- Team activities consists of value-based pricing, anatomy, and keep/cull.

EQUIPMENT

- Each participant can bring No. 2 pencils, a clean clipboard, and nonscientific/nonprogrammable calculator.
- Scan forms and blank paper will be provided by the committee.
- Participants must not bring any blank paper, notes, USDA Beef Grading worksheets, any electronic communication items, purses or backpacks.

INDIVIDUAL ACTIVITIES

Beef Quality and Yield Grading

Participants will quality grade and yield grade pictures of five beef carcasses. The pictures will be on a PowerPoint where students will quality grade backbone and carcass ribeye. **100**

POINTS (FIVE CARCASSES)

- **Quality Grading:** Participants may use the worksheet provided for Beef Grading. The participant should complete the section of answers for quality grading on the computerized scorecard. Ten points are awarded for each correct grade. Each will be scored for the applicable adjacent grade as follows: 10, 8, 5, 0. However, in the case of “B” Maturity, Select High and Select Low will be awarded zero points. **(50 points)**
- **Yield Grading:** Participants may use the worksheet provided for Beef Grading. Participants are to calculate the final yield grade (FYG) to the nearest one-tenth of a grade. Yield grades will be determined using pictures from PowerPoint. Students will be given hot carcass weight, rib eye area, and % Kidney, Pelvic, & Heart Fat (KPH). Students will have to determine the preliminary yield grade from rib eye picture and the final yield grade. Ten points are awarded for each correct grade. The participant should complete the section of answers for yield grading on the computerized scorecard. Full points will be earned for every tenth (0.10) above or below official yield grade. A two-point deduction will be made for 2/10ths to 5/10ths (0.2 to 0.5) above or below the official yield grade. A five-point deduction will be made for 6/10ths to 9/10ths (0.6 to 0.9) above or below official yield grade. Zero points will be awarded for answers one yield grade above or below the official yield grade. Official United States Department of Agriculture Yield Grades are 1.0 to 5.9. **(50 points)**

SCORING EXAMPLE

Official Yield Grade (FYG Official) = 2.2

FYG 2.1–2.3 = full points (10)

FYG 1.7–2.0 or 2.4–2.7 = minus 2 points

FYG 1.3–1.6 or 2.8–3.1 = minus 5 points

Zero points for any FYG a full yield grade above or below official FYG.

Reference: [USDA Beef Grading Worksheet](#); US Standards for Grades of Carcass Beef: copy and paste url into your search bar,

<https://www.ams.usda.gov/sites/default/files/media/CarcassBeefStandard.pdf>

Announcement of Change to the standards: <https://www.ams.usda.gov/content/usda-announces-changes-us-beef-grade-standards>

Evaluation Classes (200–400 points)

1. Four to eight evaluation classes of placing, keep/cull and/or value-based pricing. Class exhibits and formats will be as follows:

- Carcasses (beef or pork).

Reference: National Pork Board Backfat Recommendation.

- Wholesale/subprimal cuts (beef, pork, lamb).
- Retail cuts (beef, pork, lamb).
- Processed meats (cured/smoked center ham slices, sliced bacon, smoked sausage/frankfurter, smoked chops (2021)).

Reference: [Processed Meat Class Guidelines](#)

Keep/Cull Class (50 points/class)

Participants will be provided with a scenario that is an industry standard or situation. Participants will be given time to review the scenario and then time to evaluate the meat product and make a selection based on the provided information.

Reference: [Keep/Cull Class Example](#)

Value-Based Pricing (50 points/class)

Participants will place four exhibits (carcasses, wholesale cuts or subprimal cuts) based upon value (per hundred weight) derived from the pricing structure provided on the pricing sheet. The prices will reflect current market values. Pricing sheet will be provided to each participant.

Reference: [Beef Value-Based Pricing Class Example](#)

Question Classes (50 points)

Two of the evaluation classes will be selected for questions. A total of ten questions will be asked covering both classes; typically, there are five questions per class, but it could vary if needed to make the best possible questions. Participants will be given a short time period to study their notes before answering questions after they have observed and placed the classes. Participants will not be able to use their notes when answering questions. Questions will be worth five points each.

GUIDELINES FOR QUESTIONS:

- All questions must be written in a manner that they can be answered by only one of the following responses:
1, 2, 3, 4.
- Questions should pertain to the criteria and differences used in placing the class (trimness, muscling, quality and/or sex). Questions that do not relate to the placing of the class or are not significant to the overall evaluation are not desirable questions and should not be used if possible.

- When asking questions about the differences within a class, the differences must be visually distinguishable.

Reference: [Individual Examples, Evaluation Class Questions](#)

Retail Meat Cuts Identification (210 points)

Participants will identify 30 retail meats cuts found on the Meats Identification Card. The official key (Retail Cuts Code Sheet) is located near the end of this handbook. Only the cuts listed are eligible to be used in this event. Participants will be given one point for correct species identification, two points for correct primal cut identification, one point for correct cookery and three points for correct retail name. Answers will be recorded on a computerized scan form/sheet.

Reference: [Retail Cuts Code Sheet with Cookery](#)

CLARIFICATION OF TERMS FOR RETAIL IDENTIFICATION

Chop: Smaller, flat cuts of meat, usually from the pork, veal or lamb rib, loin or shoulder, generally ranging from 1/2 inch to 1 1/2 inches in thickness. A chop usually is sized to be a single meal portion.

Slice: A section of meat, usually less than one-inch thick, taken from the center or either side of center of the leg of pork, lamb or veal.

Steak: A flat cut of meat, larger than a chop, ranging from 3/4 inch to 1 1/2 inches of thickness cut from various parts of a beef carcass or the shoulder of pork and veal. The size of a steak is often sufficient to provide more than one portion.

Roast (Meat Cut): Cuts of meat larger than steaks, chops or slices (usually two or more inches thick). This cut is intended to serve more than two people.

Written Exam (100 points)

Each participant will be given a 50-question written exam from the past five National FFA tests found on the Tennessee FFA website under downloads.

TEAM ACTIVITIES

Each team will be required to complete one or two problem(s) from the list provided below. The event will be scored for a total of 50 or 100 points.

The committee will have the latitude to select the most appropriate activity each year depending on the product available.

- Utilizing product, photos or diagrams, participants will be asked to identify the following from selected locations on the exhibit:
 - Major muscle groups
 - Major bones

Reference: [Team Activities, Example #1](#)

- Utilizing the keep/cull class(es), participants will work as a team to appraise a class of retail cuts.
- Completion of a beef value-based pricing scenario.

Scoring

The event will be divided in the following sections and scored as follows:

| Activity | Individual Points | Team Points |
|--|-------------------|-------------|
| Written exam | 100 | 400 |
| Retail meat cuts identification (30 cuts) | 210 | 840 |
| Beef quality and yield grading (5 carcasses) | 100 | 400 |
| Evaluation of 4 to 8 classes | 200-400 | 800-1600 |
| Ten questions (from two of the evaluation classes) | 50 | 200 |
| Team Activity (1 or 2 @ 50 points each) | | 50-100 |
| TOTAL MAXIMUM POINTS POSSIBLE | 600-840 | 2,690-3,540 |

TIEBREAKERS

If ties occur, the following sections of the event, in this order, will be used to determine award recipients:

Individual

1. Identification retail meat cuts.
2. Grading.
3. Class questions.

Team

1. Team activity score(s).
2. Retail Identification total of the team.
3. Grading total of the team.
4. Class questions total of the team.

Awards

Awards will be presented at State FFA Convention to teams based upon their rankings. Awards are sponsored by cooperating industry sponsors.

References

This list of references is not intended to be all-inclusive. Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation.

- National FFA Core Catalog, [Shopffa.org](http://shopffa.org)
 - Retail Meat Desk Reference
 - Retail Meats Field Guide
 - Retail Meats Flashcards
 - Meat Identification Tutorial DVD
 - Meat Buyer's Guide
- National FFA CDE Q&A's, <https://www.ffa.org>
- North American Meat Institute, <https://www.meatbuyersguide.com>
 - Meat Buyer's Guide
 - NAMP Meat Posters
 - Beef, Lamb, Pork and Veal Cut Charts
- CEV Multimedia, 1020 SE Loop 289, Lubbock, Texas 79404, (800) 922-9965, <https://www.icevonline.com/curriculum>
 - Retail Cuts Identification (DVD)
 - Meat Science and Food Safety (DVD) — written exam resource, updated June 2019, slide 3 will indicate the slides that were updated.
- Beef Myology, <http://bovine.unl.edu>
- National Cattlemen's Beef Association, 9110 E. Nichols Ave. #300, Centennial, Colo. 80112, (303) 694-0305/1-800-368-3138
 - USDA Marbling Photographs
 - Guide to Identifying Meat Cuts, <https://store.beef.org/>
- American Meat Science Association (AMSA), 2441 Village Green Place, Champaign, Illinois 61874, (800) 517-2672, <http://www.meatscience.org/students/meat-judging-program>
 - Email: information@meatscience.org
 - USDA Marbling Photographs
 - Meat Evaluation Handbook
- Art Services, Inc., 3015 Earl Place, N.E., Washington, D.C., 20018, (202) 526-5607
 - Beef Ribeye Grids
- NASCO, 901 Janesville Avenue, P.O. Box 901, Fort Atkinson, Wis. 53538-0901, 1-800-558-9595
 - Preliminary Yield Grade Rulers (https://www.enasco.com/p/USDA-Preliminary-Cutability-Grade-Ruler%2BC02615N_)
 - Beef and Pork Ribeye Grids
- Example Meats Evaluation Websites of Classes and Materials
 - <http://aggiemeat.tamu.edu/meat-identification-pictures>
 - <https://www1.unl.edu/search/?q=meat+identification+pictures&u=https%3A%2F%2Fanimalscience.unl.edu%2F>
- USDA Carcass Beef Grades and Standards, copy and paste url into your search bar, <https://www.ams.usda.gov/sites/default/files/media/CarcassBeefStandard.pdf>
 - Announcement of Changes to the U.S. Beef Grade Standards, <https://www.ams.usda.gov/content/usda-announces-changes-us-beef-grade-standards>

NATIONAL PORK BOARD BACKFAT RECOMMENDATION

NOTE: Policy Statement — Backfat Recommendations for Placing Unribbed Pork Carcass Classes — The National Pork Board has published live and carcass specifications for the “ideal” market hog, known as Symbol III (National Pork Board, 2005).

Pork carcasses with less than 0.60 inches of backfat have a higher incidence of bellies that are too thin for high-quality bacon production and also tend to have unacceptably low marbling levels and less palatable pork. If this situation is presented in competition, students would be expected to evaluate the given carcass or carcasses against contemporaries within the class and rank accordingly.

PROCESSED MEAT CLASS GUIDELINES

Specifications for Evaluating Slice Bacon

DESCRIPTION:

The term “bacon” is used to describe the cured belly of a swine carcass. Sliced bacon describes slices of cured pork belly that are normally found in 12-ounce or larger vacuum wrapped packages in retail stores. The product entry should be judged as an entire package, and the bacon slices should be uniform in length and shape. Firm, dry (but not overly dry) slices are desirable, while wet, oily slices are not desirable. The presence of purge or exudate (water in the package or excess on the product’s surface) suggests that the bacon slices were generated from a lower quality belly.

EVALUATION:

Sliced bacon should be evaluated by the following criteria:

- **Fat-to-lean ratio:** The ideal fat-to-lean ratio of sliced bacon is approximately 50 to 55 percent lean and 45 to 50 percent fat. This is determined by averaging the fat vs. lean of several slices.
- **Lean and fat color:** The color of the lean portion of the bacon slices should be a desirable reddish-pink, cured color. The color should also be uniform among all muscles within each bacon slice, as well as among all the bacon slices. A bright white fat is also desirable.
- **Physical defects:** Any signs of visual oiliness/greasiness should downgrade the bacon slices exhibit. Also, lean/fat separation, tiger-stripping (light colored vertical stripes observed perpendicular to the direction of the lean and fat) and shattering/cracking of fat is also considered a defect. Finally, bacon slices should be uniform in conformation. Rectangular shaped slices devoid of “V” or valley-shaped regions are non-desirable.

Specifications for Evaluating Frankfurters/Smoked Sausage

DESCRIPTION:

Frankfurters (Coarse Ground & Emulsified) and Small-Diameter Smoked and Cooked Sausages are generally smoked, and the external appearance should be a golden-mahogany color.

The product entry should be judged as a whole, and links should be consistent in length and diameter. For natural and collagen casing products, the ends should not be excessively trimmed and/or there should not be excessive casing twists at the ends of the sausage. Smoke streaks and spots should be downgraded. The internal appearance is evaluated by cutting a link in half lengthwise to expose the interior of the sausage. Internal attributes should include a deep reddish-pink, cured color with uniform particle size and ingredient distribution.

EVALUATION:

Frankfurters and Small-Diameter Smoked and Cooked Sausages should be evaluated by the following criteria:

- **External appearance:** The external appearance should be desirable. A golden-mahogany color should exist. The color should be uniform throughout each of the links. The links should be very uniform in shape and size (including diameter). If spices (such as a black pepper) or non-meat ingredients (e.g., cheese) are present on the surface, they should be uniformly dispersed throughout. Any noticeable defects (e.g. greasiness, pinholes, wrinkles, touch-marks, etc.) should downgrade the exhibit.
- **Internal appearance:** The internal appearance should be desirable. For beef and/or pork sausages, a deep reddish-pink cured color should exist. For poultry sausages, a light reddish-pink color is desired. The texture of the sausage should not be too dry or too wet. Too much connective tissue should be downgrade the exhibit. The lean and fat particle size should be uniform throughout the sausage. If spices/non-meat ingredients are visually present, they should be uniform in size and uniformly distributed throughout the sausage. Any air pockets, voids, unidentified objects (such as hard cartilage or bone) should downgrade the exhibit.

*Specifications for Evaluating Center-Cut Ham Slices***DESCRIPTION:**

Bone-in, center-cut ham slices are removed from the center section of bone-in hams. The cured and smoked center ham slice should be free of skin, bruises, blood clots and lymph glands. Ham slices should be approximately round and exhibit a cured and smoked appearance. The lean meat should possess a fine, smooth texture with a uniform and bright reddish-pink color (a slightly two-toned or iridescent color is permissible). Excessive under- or over-trimming of the ham slice for any reason is not desirable.

EVALUATION:

Bone-in, center-cut ham slices should be evaluated by the following criteria:

- **Cutability:** Ham slices with a great area of exposed lean, little external/internal fat and a small amount of bone are desirable. For a smoked, cured ham, the center slice should display acceptable muscling as evaluated by the depth and width of the cushion and forecushion areas. Subcutaneous fat and intermuscular fat ("fat pockets") should not be excessive. No more than 1/8 inch of subcutaneous fat should be present. The size of the bone should be included in the evaluation, as a larger bone is less desirable.
- **Color:** A uniform dark reddish-pink cured color should be observed on all muscle surfaces. This cured color should be uniform throughout the entire ham slice with as little color variation between muscles as possible.
- **Physical defects:** "Blood splashing" (specks or spots of blood), uncured spots, "two-toning" or "greening" should not be present on the exposed cut surface. The texture of the exposed cut surface should be smooth and fine. Coarse texture may be the result of using meat of carcasses from mature animals or from inadequate cooking. The cut surface should be firm and non-exudative with no separation of muscle groups. The pickle pocket should be as small as possible with the least amount of sinewy appearance.

Specifications for Evaluating Smoked Chops

DESCRIPTION:

Bone-in, smoked pork chops could consist of loin chops or rib chops. The cured and smoked chops should be free of bruises or blood spots. Chops should exhibit a cured and smoked appearance. The lean meat should possess a fine, smooth texture with a uniform and bright, reddish-pink color. Excessive under-trimming or over-trimming of the chop for any reason is not desirable.

EVALUATION:

Bone-in, smoked pork chops should be evaluated by the following criteria:

- **Cutability:** Chops with a great area of exposed lean, little external fat, and a small amount of bone are desirable. For a smoked, cured chop, the chop should display acceptable muscling as evaluated by the size of the loin eye and tenderloin muscles. Subcutaneous/intramuscular fat should not be excessive. The size of the bone should be included in the evaluation, as a larger bone is less desirable.
- **Color:** A uniform dark, reddish-pink cured color should be observed on all muscle surfaces. This cured color should be uniform throughout the entire chop with as little color variation as possible.
- **Physical defects:** “Blood splashing” (specks or spots of blood), uncured spots, “two-toning,” or “greening” should not be present on the exposed cut surface. The texture of the exposed cut surface should be smooth and fine. Coarse texture may be the result of using meat of carcasses from mature animals or from inadequate cooking. The cut surface should be firm and non-exudative.

Team Activity Examples

ANATOMY EXAMPLE #1 (50 POINTS)

Utilizing a carcass, primal or subprimal exhibit, participants will be asked to identify the following from selected locations on the exhibit: **Note: Example muscle groups and major bones are not inclusive of all muscle groups or bones that may be used in the event.**

Major muscle groups:

- Longissimus dorsi
- Infraspinatus
- Spinalis dorsi
- Psoas major
- Luteus medius
- Biceps femoris
- Semitendinosus
- Semimembranosus

Major bones:

- Scapula
- Humerus
- Femur
- Thoracic vertebrae
- Lumbar vertebrae

Example Scenario:

Specific areas on one or more carcasses or wholesale/subprimal cuts or retail cuts will be identified. Based on the identified areas, participants will confer with team members to answer the following items.

1. Find the area on the carcass marked "A." Which of the following muscles can be found within this area of the carcass?
 - a) Biceps femoris
 - b) Longissimus dorsi
 - c) Semimembranosus
 - d) Semitendinosus

2. On the porterhouse steak at station #1, name the muscle identified by the tag "A":
 - a) Spinalis dorsi
 - b) Gluteus medius
 - c) Semitendinosus
 - d) Psoas major

3. On the chuck roast at station #2, name the bone specified by tag "B":
 - a) Femur
 - b) Lumbar vertebrae
 - c) Scapula
 - d) Humerus

KEEP/CULL EXAMPLE #2 (50 POINTS)

Utilizing the keep/cull class(es), the participants will work as a team to appraise a class of subprimal or retail cuts. A scenario will be provided that will allow participants to make conclusions. Team members will identify the four exhibits to keep and mark them appropriately on a computerized scorecard form to fit the scenario given to them by the officials.

Example Scenario:

As a consumer, you arrive at a supermarket meat counter with the objective of selecting ribeye steaks for a social gathering being hosted at your house. The guests include your immediate supervisor from work and her husband. Consequently, you wish to select the steaks that are the juiciest, most flavorful and most tender.

Select the four ribeye steaks to be served to your guests.

Scoring: Four meat products to be kept will have an aggregate score of 50 points.

| Correct Selection | * | | | | | * | * | * |
|------------------------|----|---|---|---|---|----|----|---|
| Exhibit Item | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| POINTS POSSIBLE | 12 | 8 | 5 | 5 | 4 | 18 | 11 | 9 |

**The four correct selections will add up to 50 points. The culled items will have a lesser value than the fourth-place item kept.*

Beef Value-Based Pricing Example #2 (50 points)

Example Scenario:

As a team you will review a Grid Pricing Sheet given by the officials. Team members are to evaluate, communicate and reach a conclusion on the correct placing of the class based on the value of the carcasses or wholesale/primal cuts.

Participants will place four exhibits (carcasses or wholesale cuts) or keep/cull (scenario will be provided) based upon value (per hundred weight (cwt)) derived from the pricing structure provided on the pricing sheet. The prices will reflect current market values. Pricing sheet will be provided to each participant.

Carcasses exhibiting dairy type are ineligible for Yield Grade 1 or 2 premiums. Carcasses classified as Hardbone will exhibit C, D or E skeletal maturity and should be yield graded only. Carcasses with blood splash or Dark Cutter are ineligible for quality grading and should be yield graded only. A bruise is classified as an area located on the carcass where excess trimming has been performed and a major portion of the major muscle groups in the chuck, rib, loin or round has been removed.

A SAMPLE BEEF CARCASS PRICING SHEET (TRAINING AID)

Values in parentheses are discounts and should be subtracted from the Carcass Base Price, which is established based on the exhibits USDA Quality and Yield Grade. Prices on the Grid Pricing Sheet may change from year to year.

Example Class

Carcass #1: Carcass Weight = 758 pounds
Quality Grade = Choice -
Yield Grade = 2.5
Base Value = \$125.00
No Discounts
Carcass Value = \$125.00

Carcass #2: Carcass Weight = 976 pounds
Quality Grade = Choice +/o
Yield Grade = 3.9
Base Value = \$127.00
Weight Discounts = minus \$4.00
Carcass Value = \$123.00

Carcass #3: Carcass Weight = 758 pounds
Quality Grade = Choice +/o
Yield Grade = 3.2
Base Value = \$127.00
Dairy Discounts = minus \$5.00
Carcass Value = 122.00

Carcass #4: Carcass Weight = 843 pounds
Quality Grade = Ineligible due to being a Dark Cutter
Yield Grade = 3.5
Base Value = \$92.00
Bruise on Left Side Loins extending into the Longissimus dorsi muscle = minus \$10.00
Carcass Value = \$82.00

PRICING SHEET EXAMPLE

Prices based on the USDA Beef Carcass Price Equivalent Index and the USDA National Carcass Premiums and Discounts

Base Price (\$/cwt.)

| | Prime | Choice +/o | Choice - | Select | Standard | Hardbone | Dark Cutter/ Blood splash |
|------|-------|------------|----------|--------|----------|----------|------------------------------|
| YG 1 | \$136 | \$130 | \$126 | \$119 | \$110 | \$96 | \$92 |
| YG 2 | \$134 | \$128 | \$125 | \$117 | \$108 | \$96 | \$92 |
| YG 3 | \$133 | \$127 | \$123 | \$116 | \$107 | \$96 | \$92 |
| YG 4 | \$121 | \$115 | \$112 | \$104 | \$95 | \$84 | \$81 |
| YG 5 | \$113 | \$108 | \$104 | \$97 | \$87 | \$77 | \$73 |

Discounts (\$/cwt.)

| Carcass | | | |
|-------------|--------|--------------|--------------------|
| <500 | (\$27) | Dairy Type * | (\$5) |
| 00 to 549 | (\$16) | Bruise | (\$10) per side ** |
| 550 to 599 | (\$4) | | |
| 900 to 949 | (\$2) | | |
| 950 to 999 | (\$4) | | |
| 1000 and up | (\$19) | | |

Final Placing: 1 - 2 - 3 - 4

Notes:

- **Carcasses exhibiting dairy type are ineligible for YG1 and YG2 premiums.*
- ***Maximum discount of \$20 per carcass for bruising.*

Retail Cuts Code Sheet with Cookery

| Species | Primal | Retail Cut | Cooking Method | Species | Primal | Retail Cut | Cooking Method |
|---------|--------|------------|----------------|---------|---------|---------------------------------|----------------|
| B | B | 89 | M | Beef | Brisket | Corned | Moist |
| B | B | 15 | M | Beef | Brisket | Flat Half, Bnls | Moist |
| B | B | 10 | M | Beef | Brisket | Whole, Bnls | Moist |
| B | C | 26 | M | Beef | Chuck | 7-bone Pot-roast | Moist |
| B | C | 03 | M | Beef | Chuck | Arm Pot-Roast | Moist |
| B | C | 04 | M | Beef | Chuck | Arm Pot-Roast, Bnls | Moist |
| B | C | 06 | M | Beef | Chuck | Blade Roast | Moist |
| B | C | 13 | D/M | Beef | Chuck | Eye Roast, Bnls | Dry/Moist |
| B | C | 45 | D | Beef | Chuck | Eye steak, Bnls | Dry |
| B | C | 20 | M | Beef | Chuck | Mock Tender Roast | Moist |
| B | C | 48 | M | Beef | Chuck | Mock Tender Steak | Moist |
| B | C | 21 | D | Beef | Chuck | Petite Tender | Dry |
| B | C | 29 | D/M | Beef | Chuck | Shoulder Pot Roast (Bnls) | Dry/Moist |
| B | C | 58 | D | Beef | Chuck | Top Blade Steak (Flat Iron) | Dry |
| B | D | 47 | D/M | Beef | Flank | Flank Steak | Dry/Moist |
| B | F | 49 | D | Beef | Loin | Porter House Steak | Dry |
| B | F | 55 | D | Beef | Loin | T-bone Steak | Dry |
| B | F | 34 | D | Beef | Loin | Tenderloin Roast | Dry |
| B | F | 56 | D | Beef | Loin | Tenderloin Steak | Dry |
| B | F | 59 | D | Beef | Loin | Top Loin Steak | Dry |
| B | F | 60 | D | Beef | Loin | Top Loin Steak, Bnls | Dry |
| B | F | 64 | D | Beef | Loin | Top Sirloin Cap Steak, Bnls | Dry |
| B | F | 63 | D | Beef | Loin | Top Sirloin Steak, Bnls Cap Off | Dry |
| B | F | 62 | D | Beef | Loin | Top Sirloin Steak, Bnls | Dry |
| B | F | 40 | D | Beef | Loin | Tri Tip Roast | Dry |
| B | G | 28 | M | Beef | Plate | Short Ribs | Moist |
| B | G | 54 | D/M | Beef | Plate | Skirt steak, Bnls | D/M |
| B | H | 22 | D | Beef | Rib | Rib Roast | Dry |
| B | H | 13 | D | Beef | Rib | Ribeye Roast, Bnls | Dry |
| B | H | 45 | D | Beef | Rib | Ribeye Steak, Bnls | Dry |
| B | H | 50 | D | Beef | Rib | Ribeye Steak, Lip-On | Dry |
| B | I | 08 | D/M | Beef | Round | Bottom Round Roast | Dry/Moist |
| B | I | 09 | D/M | Beef | Round | Bottom Round Rump Roast | Dry/Moist |
| B | I | 43 | M | Beef | Round | Bottom Round Steak | Moist |
| B | I | 14 | D/M | Beef | Round | Eye Round Roast | Dry/Moist |
| B | I | 46 | D/M | Beef | Round | Eye Round Steak | Dry/Moist |
| B | I | 51 | M | Beef | Round | Round Steak | Moist |
| B | I | 52 | M | Beef | Round | Round Steak, Bnls | Moist |
| B | I | 36 | D/M | Beef | Round | Tip Roast – Cap Off | Dry/Moist |
| B | I | 57 | D | Beef | Round | Tip Steak – Cap Off | Dry |
| B | I | 39 | D | Beef | Round | Top Round Roast | Dry |
| B | I | 61 | D | Beef | Round | Top Round Steak | Dry |
| B | N | 82 | M | Beef | Various | Beef for Stew | Moist |
| B | N | 83 | D/M | Beef | Various | Cubed Steak | Dry/Moist |
| B | N | 84 | D | Beef | Various | Ground Beef | Dry |
| P | E | 44 | D/M | Pork | Ham/Leg | Pork Fresh Ham Center Slice | Dry/Moist |
| P | E | 25 | D/M | Pork | Ham/Leg | Pork Fresh ham Rump Portion | Dry/Moist |
| P | E | 27 | D/M | Pork | Ham/Leg | Pork Fresh ham Shank Portion | Dry/Moist |
| P | E | 91 | D | Pork | Ham/Leg | Smoked Ham, Bnls | Dry |
| P | E | 90 | D | Pork | Ham/Leg | Smoked Ham, Center Slice | Dry |
| P | E | 96 | D | Pork | Ham/Leg | Smoked Ham, Rump Portion | Dry |
| P | E | 97 | D | Pork | Ham/Leg | Smoked Ham, Shank Portion | Dry |
| P | E | 35 | D | Pork | Ham/Leg | Tip Roast, Bnls | Dry |
| P | E | 38 | D | Pork | Ham/Leg | Top Roast, Bnls | Dry |
| P | F | 05 | D/M | Pork | Loin | Back Ribs | Dry/Moist |
| P | F | 66 | D/M | Pork | Loin | Blade Chops | Dry/Moist |
| P | F | 67 | D/M | Pork | Loin | Blade Chops, Bnls | Dry/Moist |
| P | F | 06 | D/M | Pork | Loin | Blade Roast | Dry/Moist |
| P | F | 68 | D | Pork | Loin | Butterflied Chops Bnls | Dry |
| P | F | 11 | D | Pork | Loin | Center Loin Roast | Dry |

| Species | Primal | Retail Cut | Cooking Method | Species | Primal | Retail Cut | Cooking Method |
|---------|--------|------------|----------------|---------|------------|---------------------------|----------------|
| P | F | 12 | D | Pork | Loin | Center Rib Roast | Dry |
| P | F | 70 | D | Pork | Loin | Loin Chops | Dry |
| P | F | 71 | D | Pork | Loin | Rib Chops | Dry |
| P | F | 73 | D | Pork | Loin | Sirloin Chops | Dry |
| P | F | 53 | D | Pork | Loin | Sirloin Cutlets | Dry |
| P | F | 30 | D | Pork | Loin | Sirloin Roast | Dry |
| P | F | 93 | D | Pork | Loin | Smoked Pork Loin Chop | Dry |
| P | F | 95 | D | Pork | Loin | Smoked Pork Loin Rib Chop | Dry |
| P | F | 34 | D | Pork | Loin | Tenderloin, Whole | Dry |
| P | F | 74 | D | Pork | Loin | Top Loin Chops | Dry |
| P | F | 75 | D | Pork | Loin | Top Loin Chops, Bnls | Dry |
| P | F | 37 | D | Pork | Loin | Top Loin Roast, Bnls | Dry |
| P | J | 02 | D/M | Pork | Shoulder | Arm Picnic, Whole | Dry/Moist |
| P | J | 03 | D/M | Pork | Shoulder | Arm Roast | Dry/Moist |
| P | J | 41 | D/M | Pork | Shoulder | Arm Steak | Dry/Moist |
| P | J | 07 | D/M | Pork | Shoulder | Blade Boston Roast | Dry/Moist |
| P | J | 42 | D/M | Pork | Shoulder | Blade Steak | Dry/Moist |
| P | J | 94 | D/M | Pork | Shoulder | Smoked Picnic, Whole | Dry/Moist |
| P | K | 98 | D | Pork | Side | Slab Bacon | Dry |
| P | K | 99 | D | Pork | Side | Sliced Bacon | Dry |
| P | K | 17 | M | Pork | Side/Belly | Fresh Side | Moist |
| P | L | 32 | D/M | Pork | Spareribs | Pork Spareribs | Dry/Moist |
| P | N | 85 | D | Pork | Various | Ground Pork | Dry |
| P | N | 86 | M | Pork | Various | Hock | Moist |
| P | N | 83 | D/M | Pork | Various | Pork Cubed steak | Dry/Moist |
| P | N | 87 | D | Pork | Various | Pork Sausage Links | Dry |
| P | N | 87 | D | Pork | Various | Sausage | Dry |
| P | N | 92 | M | Pork | Various | Smoked Pork Hock | Moist |
| P | N | 69 | D/M | Pork | Various | Country Style Ribs | Dry/Moist |
| L | A | 24 | D/M | Lamb | Breast | Ribs (Denver Style) | Dry/Moist |
| L | E | 01 | D | Lamb | Leg | American Style Roast | Dry |
| L | E | 44 | D | Lamb | Leg | Center Slice | Dry |
| L | E | 16 | D | Lamb | Leg | Frenched Style Roast | Dry |
| L | E | 18 | D | Lamb | Leg | Leg Roast, Bnls | Dry |
| L | E | 73 | D | Lamb | Leg | Sirloin Chops | Dry |
| L | E | 31 | D | Lamb | Leg | Sirloin Half | Dry |
| L | F | 70 | D | Lamb | Loin | Loin Chops | Dry |
| L | F | 19 | D | Lamb | Loin | Loin Roast | Dry |
| L | H | 71 | D | Lamb | Rib | Rib Chops | Dry |
| L | H | 72 | D | Lamb | Rib | Rib Chops Frenched | Dry |
| L | H | 22 | D | Lamb | Rib | Rib Roast | Dry |
| L | H | 23 | D | Lamb | Rib | Rib Roast, Frenched | Dry |
| L | J | 65 | D/M | Lamb | Shoulder | Arm Chops | Dry/Moist |
| L | J | 66 | D/M | Lamb | Shoulder | Blade Chops | Dry/Moist |
| L | J | 33 | D/M | Lamb | Shoulder | Square Cut | Dry/Moist |
| L | N | 88 | M | Lamb | Various | Shank | Moist |
| B | M | 76 | D/M | Beef | Variety | Heart | Dry/Moist |
| L | M | 76 | D/M | Lamb | Variety | Heart | Dry/Moist |
| P | M | 76 | D/M | Pork | Variety | Heart | Dry/Moist |
| B | M | 77 | D/M | Beef | Variety | Kidney | Dry/Moist |
| L | M | 77 | D/M | Lamb | Variety | Kidney | Dry/Moist |
| P | M | 77 | D/M | Pork | Variety | Kidney | Dry/Moist |
| B | M | 78 | D/M | Beef | Variety | Liver | Dry/Moist |
| L | M | 78 | D/M | Lamb | Variety | Liver | Dry/Moist |
| P | M | 78 | D/M | Pork | Variety | Liver | Dry/Moist |
| B | M | 79 | M | Beef | Variety | Oxtail | Moist |
| B | M | 80 | D/M | Beef | Variety | Tongue | Dry/Moist |
| L | M | 80 | D/M | Lamb | Variety | Tongue | Dry/Moist |
| P | M | 80 | D/M | Pork | Variety | Tongue | Dry/Moist |
| B | M | 81 | M | Beef | Variety | Tripe | Moist |

USDA BEEF GRADING WORKSHEET

CARCASS YIELD GRADING

| Carcass NO. | PYG | | Carcass Weight | Required REA | Rib Eye Area | | % KPH | | FYG |
|-------------|------|------|----------------|--------------|--------------|------|-------|------|-----|
| | Est. | Adj. | | | Est. | Adj. | Est. | Adj. | |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |

Identify the final yield grade (to the nearest tenth) and complete the scan form to match. Full points will be earned for a correct answer and 0.1 above or below official yield grade. A two-point deduction will be made for 0.2 to 0.5 above or below official yield grade. A five-point deduction will be made for 0.6 to 0.9 above or below official yield grade. Zero points will be awarded for answers one yield grade above or below the official yield grade. A perfect score will be a maximum of forty points for each yield grading (ten points for four carcasses).

CARCASS QUALITY GRADING

| Carcass No. | Age | | Marbling | Quality Grade |
|-------------|-------------------|-----------|----------|---------------|
| | Skeletal Maturity | Lean Adj. | | |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |

- Prime High
- Prime Average
- Prime Low
- Choice High
- Choice Average
- Choice Low
- Select High
- Select Low
- Standard High
- Standard Low
- Commercial High
- Commercial Average
- Commercial Low
- Utility High
- Utility Average
- Utility Low

The participant should establish the quality grades for each carcass according to USDA standards. Each participant should complete the section of answers for quality grading on the computerized scorecard.

Canner and Cutter grades will not be used in the event. Ten points will be awarded for each correct grade. Each grade will be scored for the applicable adjacent grade as follows: 10, 8, 5, 0. Yet, in the case of "B" Maturity, Select High and Select Low will be awarded zero points. A perfect score will be a maximum of forty points for quality grading (10 points each for four carcasses).

Agriculture, Food and Natural Resources Content Standards

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|--|--|---|
| ABS.01.01. Performance Indicator: Apply micro- and macroeconomic principles to plan and manage inputs and outputs in an AFNR business. | | |
| ABS.01.01.01.b. Apply microeconomic principles to calculate values associated with different inputs and outputs in AFNR businesses (e.g., price, point of equilibrium, opportunity costs, marginal costs, etc.). | Evaluation classes – placing and value-based Team activity – value-based | CCSS.ELA-Literacy.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.MATH.CONTENT.HSS.ID.C.7 CCSS.MATH.CONTENT.HSS.IC.B.6 Financial Investing: Benchmarks: Grade 12, Statement 9 |
| ABS.01.01.02.c. Analyze the impact of the current macroeconomic environment on decisions related to AFNR businesses. | Evaluation classes – placing, value-based and keep/cull Team activity – problem solving | CCSS.ELA-Literacy.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.MATH.CONTENT.HSS.ID.C.7 CCSS.MATH.CONTENT.HSS.IC.B.6 Financial Investing: Benchmarks: Grade 12, Statement 9 |
| ABS.01.02. Performance Indicator: Read, interpret, evaluate and write statements of purpose to guide business goals, objectives and resource allocation. | | |
| ABS.01.02.01.b. Assess approaches to create statements of purpose for AFNR businesses. | Team activity – food safety | CCSS.ELA-LITERACY.W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.W.9-10.9 CCSS.ELA-LITERACY.W.11-12.9 CCSS.ELA-LITERACY.RI.9-10.4 CCSS.ELA-LITERACY.RI.11-12.4 |
| ABS.01.03. Performance Indicator: Devise and apply management skills to organize and run an AFNR business in an efficient, legal and ethical manner. | | |
| ABS.01.03.02.b. Assess how local, state, federal, international and industry regulations positively and negatively affect the management and operation of AFNR businesses. | Grading Team activity – food safety and problem solving | CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.ELA-LITERACY.W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.W.9-10.9 CCSS.ELA-LITERACY.W.11-12.9 CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 CCSS.ELA-LITERACY.RI.9-10.4 CCSS.ELA-LITERACY.RI.11-12.4 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 Earning Income: Benchmarks: Grade 12, Statements 1 Earning Income: Benchmarks: Grade 12, Statements 2 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|--|---|---|
| | | Earning Income: Benchmarks: Grade 12, Statements 4 Protecting and Insuring: Benchmarks: Grade 12, Statements 8 Protecting and Insuring: Benchmarks: Grade 12, Statements 9 Protecting and Insuring: Benchmarks: Grade 12, Statements 10 Protecting and Insuring: Benchmarks: Grade 12, Statements 12 |
| ABS.01.03.03.b. Analyze the importance of using ethical standards and develop methods to communicate ethical standards within AFNR businesses. | Team activity – food safety and problem solving | CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.ELA-LITERACY.W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.W.9-10.9 CCSS.ELA-LITERACY.W.11-12.9 CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 CCSS.ELA-LITERACY.RI.9-10.4 CCSS.ELA-LITERACY.RI.11-12.4 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 Earning Income: Benchmarks: Grade 12, Statements 1 Earning Income: Benchmarks: Grade 12, Statements 2 Earning Income: Benchmarks: Grade 12, Statements 4 Protecting and Insuring: Benchmarks: Grade 12, Statements 8 Protecting and Insuring: Benchmarks: Grade 12, Statements 9 Protecting and Insuring: Benchmarks: Grade 12, Statements 10 Protecting and Insuring: Benchmarks: Grade 12, Statements 12 |
| ABS.02.01. Performance Indicator: Apply fundamental accounting principles, systems, tools and applicable laws and regulations to record, track and audit AFNR business transactions (e.g., accounts, debits, credits, assets, liabilities, equity, etc.). | | |
| ABS.02.01.01.b. Evaluate the implementation of accounting systems and procedures used for record keeping in AFNR businesses. | Team activity – food safety | CCSS.MATH.CONTENT.HSS.IC.B.6 CCSS.MATH.CONTENT.HSN.Q.A.1 Earning Income: Benchmarks: Grade 12, Statements 7 Earning Income: Benchmarks: Grade 12, Statements 8 |
| ABS.02.01.02.c. Recommend and select tools and services to track, record and audit AFNR business transactions that meet business needs and priorities (e.g., electronic and paper based systems, etc.). | Team activity – food safety | CCSS.MATH.CONTENT.HSS.IC.B.6 CCSS.MATH.CONTENT.HSN.Q.A.1 Earning Income: Benchmarks: Grade 12, Statements 7 Earning Income: Benchmarks: Grade 12, Statements 8 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|--|---|
| ABS.02.01.03.a. Identify and examine applicable laws and regulations related to recording, tracking and auditing AFNR business transactions (e.g., Generally Accepted Accounting Principles, data security, etc.). | Team activity – problem solving, food safety, identification and keep/cull | CCSS.MATH.CONTENT.HSS.IC.B.6 CCSS.MATH.CONTENT.HSN.Q.A.1 Earning Income: Benchmarks: Grade 12, Statements 7 Earning Income: Benchmarks: Grade 12, Statements 8 |
| ABS.02.02. Performance Indicator: Assemble, interpret and analyze financial information and reports to monitor AFNR business performance and support decision-making (e.g., income statements, balance sheets, cash-flow analysis, inventory reports, break-even analysis, return on investment, taxes, etc.). | | |
| ABS.02.02.02.c. Create recommendations to improve management of inventory in AFNR businesses (e.g., maintaining optimal levels, calculating costs of carrying input and output inventory, supply chain management, etc.). | Evaluation classes – value-based, keep/cull Team activity – value-based, problem solving and keep/cull | CCSS.ELA-LITERACY.W.9-10.9 CCSS.ELA-LITERACY.W.11-12.9 CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 CCSS.MATH.CONTENT.HSS.ID.C.7 CCSS.MATH.CONTENT.HSS.IC.B.6 CCSS.MATH.CONTENT.HSN.Q.A.1 Savings: Benchmarks: Grade 12, Statements 3 Savings: Benchmarks: Grade 12, Statements 4 Savings: Benchmarks: Grade 12, Statements 6 Savings: Benchmarks: Grade 12, Statements 7 Financial Investing: Benchmarks: Grade 12, Statement 2 |
| ABS.03.01. Performance Indicator: Develop, assess and manage cash budgets to achieve AFNR business goals. | | |
| ABS.03.01.01.b. Examine and interpret cash budgets for AFNR businesses. | Evaluation classes – value-based and keep/cull Team activity – value-based, keep/cull and problem solving | CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.MATH.CONTENT.HSS.IC.B.6 |
| ABS.03.01.02.b. Examine and identify strategies to manage components of cash budgets to minimize liabilities and maximize profit in AFNR businesses (e.g., delayed payment of expenses, prepayment of expenses, etc.). | Evaluation classes – value-based and keep/cull Team activity – value-based, keep/cull and problem solving, | CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.MATH.CONTENT.HSS.IC.B.6 |
| ABS.04.02. Performance Indicator: Develop production and operational plans for an AFNR business. | | |
| ABS.04.02.01.c. Make recommendations to improve operational plans for an AFNR business based on best practices. | Evaluation classes – value-based and keep/cull Questions Team activity – value-based, food safety, keep/cull and problem solving | AFNR Career Cluster – Agribusiness Systems Pathway, Statement 3 CCSS.ELA-LITERACY.ELA-W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 |
| ABS.04.02.02.b. Identify and assess alternative production systems for a specific agricultural product. | Evaluation classes – value-based and keep/cull Grading Identification Team activity – value-based, keep/cull, food safety and problem solving | AFNR Career Cluster – Agribusiness Systems Pathway, Statement 3 CCSS.ELA-LITERACY.ELA-W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|---|---|
| CCSS.ELA-LITERACY.RST.11-12.4 | | |
| ABS.05.01. Performance Indicator: Analyze the role of markets, trade, competition and price in relation to an AFNR business sales and marketing plans. | | |
| ABS.05.01.01.b. Analyze the role of trade and price in the market structure as it relates to AFNR businesses. | Evaluation classes – value-based and keep/cull Grading Identification Team activity – value-based and keep/cull | AFNR Career Cluster, Statement 7 AFNR Career Cluster – Agribusiness Systems Pathway, Statement 1 Financial Investing: Benchmarks: Grade 12, Statement 13 |
| ABS.05.02. Performance Indicator: Assess and apply sales principles and skills to accomplish AFNR business objectives. | | |
| ABS.05.02.01.b. Apply the sales process to AFNR businesses and communicate ways of accomplishing the businesses' goals and objectives. | Evaluation classes – value-based and keep/cull Grading Identification Team activity – value-based, keep/cull and problem solving | CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 Buying Goods & Services: Benchmarks: Grade 12, Statements 1 Buying Goods & Services: Benchmarks: Grade 12, Statements 3 Buying Goods & Services: Benchmarks: Grade 12, Statements 4 Buying Goods & Services: Benchmarks: Grade 12, Statements 5 |
| ABS.05.02.02.b. Assess different responses/customer reactions that could be presented during different types of sales calls used in AFNR businesses (e.g., competitor prices, competing products, post-sale service, complaints about product, etc.). | Evaluation classes – value-based and keep/cull Identification Team activity – value-based, keep/cull and problem solving | CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 Buying Goods & Services: Benchmarks: Grade 12, Statements 1 Buying Goods & Services: Benchmarks: Grade 12, Statements 3 Buying Goods & Services: Benchmarks: Grade 12, Statements 4 Buying Goods & Services: Benchmarks: Grade 12, Statements 5 |
| ABS.05.03. Performance Indicator: Assess marketing principles and develop marketing plans to accomplish AFNR business objectives. | | |
| ABS.05.03.01.b. Assess alternative marketing strategies as related to marketing principles for AFNR businesses (e.g. value-adding, branding, niche marketing, etc.). | Evaluation classes – value-based and keep/cull Grading Identification Team activity – value-based and keep/cull | AFNR Career Cluster – Agribusiness Systems Pathway, Statement 4 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.ELA-LITERACY.W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 Buying Goods & Services: Benchmarks: Grade 12, Statements 1 Buying Goods & Services: Benchmarks: Grade 12, Statements 3 Buying Goods & Services: Benchmarks: Grade 12, Statements 4 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|--|--|
| | | Buying Goods & Services: Benchmarks: Grade 12, Statements 7 |
| ABS.05.03.02.b. Compare and contrast the strategies of marketing for products and services used in AFNR businesses (e.g., direct marketing, commodities, etc.). | Evaluation classes – value-based and keep/cull Grading Identification Placing Team activity – value-based and keep/cull | AFNR Career Cluster – Agribusiness Systems Pathway, Statement 4 CCSS.ELA-LITERACY.L.9-10.6 CCSS.ELA-LITERACY.L.11-12.6 CCSS.ELA-LITERACY.RST.9-10.4 CCSS.ELA-LITERACY.RST.11-12.4 CCSS.ELA-LITERACY.W.9-10.2 CCSS.ELA-LITERACY.W.11-12.2 CCSS.ELA-LITERACY.RH.9-10.7 CCSS.ELA-LITERACY.RH.11-12.7 CCSS.ELA-LITERACY.SL.9-10.6 CCSS.ELA-LITERACY.SL.11-12.6 Buying Goods & Services: Benchmarks: Grade 12, Statements 1 Buying Goods & Services: Benchmarks: Grade 12, Statements 3 Buying Goods & Services: Benchmarks: Grade 12, Statements 4 Buying Goods & Services: Benchmarks: Grade 12, Statements 7 |
| AS.01.01. Performance Indicator: Evaluate the development and implications of animal origin, domestication and distribution on production practices and the environment. | | |
| AS.01.01.01.b. Evaluate and describe characteristics of animals that developed in response to the animal's environment and led to their domestication. | Grading Written exam | HS-LS4-3 |
| AS.01.02. Performance Indicator: Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts. | | |
| AS.01.02.01.c. Evaluate the effectiveness of different production methods and defend the use of selected methods using data and evidence. | Evaluation classes – value-based and keep/cull Grading Identification Team activity – value-based and keep/cull | AFNR Career Cluster, Statement 1 AFNR Career Cluster – Animal Systems Pathway, Statement 3 STEM Career Cluster, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 3 |
| AS.01.02.02.b. Calculate costs of marketing versus predicted increases in sales. | Team activity – problem solving | AFNR Career Cluster, Statement 1 AFNR Career Cluster – Animal Systems Pathway, Statement 3 STEM Career Cluster, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 3 |
| AS.01.03. Performance Indicator: Analyze and apply laws and sustainable practices to animal agriculture from a global perspective. | | |
| AS.01.03.01.b. Analyze the structure of laws governing animal industries, international trade and animal production policies. | Evaluation classes – value-based and keep/cull Grading Identification Team activity – value-based, keep/cull, food safety and problem solving | AFNR Career Cluster, Statement 2 AFNR Career Cluster – Animal Systems Pathway, Statement 1 STEM Career Cluster, Statement 1, 4 CCSS.ELA-Literacy.W.9-10.9b CCSS.ELA-Literacy.W.11-12.9b CCSS.ELA-Literacy.RI.9-10.1 CCSS.ELA-Literacy.RI.11-12.1 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|---|---|
| | | HS-ETS1-1 |
| AS.02.01. Performance Indicator: Demonstrate management techniques that ensure animal welfare. | | |
| AS.02.01.01.c. Implement and evaluate quality-assurance programs and procedures for animal production. | Team activity – food safety | HS-ETS1-2 |
| AS.02.01.02.c. Devise, implement and evaluate safety procedures and plans for working with animals by species using information based on animal behavior and responses. | Team activity – food safety and problem solving | HS-ETS1-2 |
| AS.02.02. Performance Indicator: Analyze procedures to ensure that animal products are safe for consumption. | | |
| AS.02.02.01.c. Select, evaluate and defend the use of specific tools, technology or equipment used to perform animal husbandry and welfare tasks. | Evaluation classes – value-based and keep/cull Grading Placing Team activity – value-based, keep/cull, food safety and problem solving Written exam | HS-ETS1-2 |
| AS.02.02.02.c. Research and evaluate programs to assure the safety of animal products for consumption. | Team activity – food safety | HS-ETS1-2 |
| AS.04.01. Performance Indicator: Evaluate animals for breeding readiness and soundness. | | |
| AS.04.01.01.a. Identify and categorize the male and female reproductive organs of the major animal species. | Evaluation classes – value-based Questions Team activity – value-based | |
| AS.04.02. Performance Indicator: Apply scientific principles to select and care for breeding animals. | | |
| AS.04.02.01.b. Compare and contrast the use of genetically superior animals in the production of animals and animal products. | Evaluation classes – value-based and keep/cull Grading Placing Team activity – value-based and keep/cull | CCSS.MATH.CONTENT.HSS.MD.A.3 HS-LS3-2 HS-LS3-3 |
| AS.04.03 Performance Indicator: Apply scientific principles to breed animals. | | |
| AS.04.03.04.b. Compare and contrast quantitative breeding value differences between genetically superior animals and animals of average genetic value. | Questions Grading Evaluation classes – placing, value-based and keep/cull Team activity – value-based and keep/cull | |
| AS.05.01. Performance Indicator: Design animal housing, equipment and handling facilities for the major systems of animal production. | | |
| AS.05.01.02.c. Select, use and evaluate equipment, technology and handling procedures to enhance sustainability and production efficiency. | Team activity – value-based and food safety | AFNR Career Cluster – Animal Systems Pathway, Statement 2 STEM Career Cluster, Statement 4 STEM Career Cluster, Statement 5 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|--|---|---|
| AS.05.02. Performance Indicator: Comply with government regulations and safety standards for facilities used in animal production. | | |
| AS.05.02.01.c. Evaluate facility designs and make recommendations to ensure that it meets standards for the legal, safe, ethical, economical and efficient production of animals. | Evaluation classes – value-based, keep/cull and placing Team activity – food safety | CCSS.ELA-Literacy.W.9-10.9b CCSS.ELA-Literacy.W.11-12.9b |
| AS.05.02.02.c. Evaluate the impact of laws pertaining to animal systems. | Team activity – food safety, problem solving and value-based | CCSS.ELA-Literacy.W.9-10.9b CCSS.ELA-Literacy.W.11-12.9b |
| AS.06.01. Performance Indicator: Classify animals according to taxonomic classification systems and use (e.g. agricultural, companion, etc.). | | |
| AS.06.01.01.c. Assess taxonomic characteristics and classify animals according to the taxonomic classification system. | Identification Team activity - identification | |
| AS.06.01.02.c. Recommend different uses for an animal species based upon an analysis of local market needs. | Evaluation classes – value-based Team activity – value-based | |
| AS.06.01.03.b. Analyze the visual characteristics of an animal or animal product and select correct classification terminology when referring to companion and production animals. | Entire event | |
| AS.06.02. Performance Indicator: Apply principles of comparative anatomy and physiology to uses within various animal systems. | | |
| AS.06.02.03.c. Apply knowledge of anatomical and physiological characteristics of animals to make production and management decisions. | Grading Team activity – anatomy and identification | HS-LS1-2 |
| AS.06.03. Performance Indicator: Select animals for specific purposes and maximum performance based on anatomy and physiology. | | |
| AS.06.03.01.c. Evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth and reproduction. | Grading Identification Keep/Cull Placing Value-based | STEM Career Cluster, Statement 5 |
| AS.06.03.02.c. Choose, implement and evaluate sustainable and efficient procedures (e.g., selection, housing, nutrition and management) to produce consistently high-quality animals that are well-suited for their intended purposes. | Evaluation classes – placing, keep/cull and value-based Grading Team activity – problem solving | STEM Career Cluster, Statement 5 |
| AS.06.03.03.c. Evaluate and select animals to produce superior animal products based on industry standards. | Entire event | STEM Career Cluster, Statement 5 |
| AS.07.02. Performance Indicator: Analyze biosecurity measures utilized to protect the welfare of animals. | | |
| AS.07.02.01.c. Design and evaluate a biosecurity plan for an animal production operation. | Team activity – food safety | |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|---|----------------------------------|
| CS.01.02. Performance Indicator: Examine technologies and analyze their impact on AFNR systems. | | |
| CS.01.02.01.c. Solve problems in AFNR workplaces or scenarios using technology. | Team activity – problem solving | |
| CS.01.02.02.c. Evaluate the importance of technology use and how it impacts AFNR systems. | Written exam | |
| CS.02.01. Performance Indicator: Research geographic and economic data related to AFNR systems. | | |
| CS.02.01.02.c. Devise a strategy to solve a problem in an AFNR system using a set of economic data. | Team activity – value-based | |
| CS.02.02. Performance Indicator: Examine the components of the AFNR systems and their impact on the local, state, national and global society and economy. | | |
| CS.02.02.03.b. Assess the economic impact of an AFNR system on a local, state, national and global level. | Team activity – value-based and problem solving Written exam | |
| CS.03.01. Performance Indicator: Identify required regulations to maintain and improve safety, health and environmental management systems. | | |
| CS.03.01.01.b. Assess health, safety and environmental procedures to comply with regulatory and safety standards. | Team activity – food safety Written exam | |
| CS.03.01.02.b. Analyze existing required regulations within an AFNR workplace. | Team activity – food safety and problem solving Written exam | |
| CS.03.02. Performance Indicator: Develop a plan to maintain and improve health, safety and environmental compliance and performance. | | |
| CS.03.02.01.b. Analyze health and safety performance plans of an AFNR business. | Team activity – food safety Written exam | AFNR Career Cluster, Statement 6 |
| CS.03.03. Performance Indicator: Apply health and safety practices to AFNR worksites. | | |
| CS.03.03.01.b. Analyze and summarize current health and safety practices of AFNR businesses. | Team activity – food safety Written exam | |
| CS.03.03.02.b. Assess various emergency response plan requirements for an AFNR worksite and/or facility. | Team activity – food safety Written exam | |
| CS.03.04. Performance Indicator: Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment. | | |
| CS.03.04.01.b. Analyze and summarize protective equipment requirements on various AFNR tools and equipment. | Written exam | |
| C3.06.04.02.c. Evaluate and select appropriate tools and equipment to complete AFNR tasks. | Written exam | |
| CS.06.02. Performance Indicator: Explain the connection and relationships between different AFNR systems on a national and global level. | | |
| CS.06.02.01.b. Analyze differences between AFNR systems on a national and global scale. | Team activity – problem solving | |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|---|----------------------------|
| CRP.01.01. Performance Indicator: Model personal responsibility in the workplace and community. | | |
| CRP.01.01.01.b. Analyze and predict how personal responsibility impacts the workplace and community. | Team activity – process | |
| CRP.01.01.02.c. Model personal responsibility in workplace and community situations. | Team activity – process | |
| CRP.01.02 Performance Indicator: Evaluate and consider the near-term and long-term impacts of personal and professional decisions on employers and community before taking action. | | |
| CRP.01.02.01.b. Assess the pros and cons of personal decisions based on their anticipated impact on self and others. | Team activity – process | |
| CRP.01.02.02.b. Analyze the pros and cons of professional decisions based upon impact on employers and community. | Team activity – process | |
| CRP.02.01. Performance Indicator: Use strategic thinking to connect and apply academic learning, knowledge and skills to solve problems in the workplace and community. | | |
| CRP.02.01.01.c. Apply academic knowledge and skills to solve problems in the workplace and reflect upon the results achieved. | Entire event | |
| CRP.02.02. Performance Indicator: Use strategic thinking to connect and apply technical concepts to solve problems in the workplace and community. | | |
| CRP.02.02.01.c. Apply technical concepts to solve problems in the workplace and reflect upon the results achieved. | Entire event | |
| CRP.04.01. Performance Indicator: Speak using strategies that ensure clarity, logic, purpose and professionalism in formal and informal settings. | | |
| CRP.04.01.01.b. Analyze use of verbal and non-verbal communication strategies in workplace situations. | Team activity – process | |
| CRP.04.02. Performance Indicator: Produce clear, reasoned and coherent written communication in formal and informal settings. | | |
| CRP.04.02.02.c. Compose clear and coherent written documents (e.g., agendas, audio-visuals, drafts, forms, etc.) for formal and informal settings. | Team activity – problem solving Written exam | |
| CRP.04.03. Performance Indicator: Model active listening strategies when interacting with others in formal and informal settings. | | |
| CRP.04.03.01.b. Apply active listening strategies (e.g., be attentive, observe non-verbal cues, ask clarifying questions, etc.). | Team activity – process | |
| CRP.04.03.02.c. Model active listening strategies in formal and informal settings. | Team activity – process | |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|---|--|----------------------------|
| CRP.05.01. Performance Indicator: Assess, identify and synthesize the information and resources needed to make decisions that positively impact the workplace and community. | | |
| CRP.05.01.01.c. Evaluate workplace and community decision-making processes and devise strategies for improvement. | Team activity - process | |
| CRP.05.01.02.c. Evaluate workplace and community situations and recommend the information and resources needed to support good decisions. | Team activity - process | |
| CRP.05.01.03.c. Synthesize information and resources and apply to workplace and community situations to make positive decisions. | Team activity - process | |
| CRP.05.02. Performance Indicator: Make, defend and evaluate decisions at work and in the community using information about the potential environmental, social and economic impacts. | | |
| CRP.05.02.01.b. Apply a structured decision-making process to improve workplace and community situations. | Team activity - process | |
| CRP.06.01. Performance Indicator: Synthesize information, knowledge and experience to generate original ideas and challenge assumptions in the workplace and community. | | |
| CRP.06.01.01.b. Synthesize information, knowledge and experiences to generate ideas for workplace and community situations. | Team activity - process | |
| CRP.08.01. Performance Indicator: Apply reason and logic to evaluate workplace and community situations from multiple perspectives. | | |
| CRP.08.01.01.b. Apply steps for critical thinking to a variety of workplace and community situations. | Team activity - process | |
| CRP.08.02. Performance Indicator: Investigate, prioritize and select solutions to solve problems in the workplace and community. | | |
| CRP.08.02.02.b. Apply decision-making processes to generate possible solutions to solve workplace and community problems. | Entire event | |
| CRP.08.03. Performance Indicator: Establish plans to solve workplace and community problems and execute them with resiliency. | | |
| CRP.08.03.02.b. Create plans to solve workplace and community problems. | Team activity | |
| CRP.09.01. Performance Indicator: Model characteristics of ethical and effective leaders in the workplace and community (e.g. integrity, self-awareness, self-regulation, etc.). | | |
| CRP.09.01.02.c. Model characteristics and actions of ethical and effective leaders in workplace and community situations (e.g., integrity, self-awareness, etc.). | Team activity - process | |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
|--|---|--|
| CRP.09.03. Performance Indicator: Demonstrate behaviors that contribute to a positive morale and culture in the workplace and community (e.g., positively influencing others, effectively communicating, etc.). | | |
| CRP.09.03.02.c. Model respectful and purposeful behaviors that contribute to positive morale and culture in the workplace and community (e.g., effectively communicating, recognizing accomplishments of others, etc.). | Team activity - process | |
| CRP.11.01. Performance Indicator: Research, select and use new technologies, tools and applications to maximize productivity in the workplace and community. | | |
| CRP.11.01.01.b. Analyze advantages and disadvantages of new technologies, tools and applications to maximize productivity in the workplace and community. | Team activity – problem solving | |
| CRP.11.01.02.b. Select, apply and use new technologies, tools and applications in workplace and community situations to maximize productivity. | Team activity – problem solving and value-based | |
| CRP.12.01. Performance Indicator: Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community. | | |
| CRP.12.01.02.b. Apply consensus building techniques to accomplish results in team-oriented situations. | Team activity - process | |
| CRP.12.02. Performance Indicator: Create and implement strategies to engage team members to work toward team and organizational goals in a variety of workplace and community situations (e.g., meetings, presentations, etc.). | | |
| CRP.12.02.01.b. Assess team dynamics and match strategies to increase team member engagement. | Team activity - process | |
| FPP.01.01. Performance Indicator: Analyze and manage operational and safety procedures in food products and processing facilities. | | |
| FPP.01.01.01.b. Analyze and document attributes and procedures of current safety programs in food products and processing facilities. | Team activity – food safety Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 AFNR Career Cluster, Statement 6 Manufacturing Career Cluster – Maintenance, Installation and Repair Pathway Statement 2 Manufacturing Career Cluster – Maintenance, Installation and Repair Pathway Statement 4 Manufacturing Career Cluster – Production Pathway 2 Manufacturing Career Cluster – Production Pathway 3 |
| FPP.01.01.02.c. Devise strategies to maintain equipment and facilities for food products and processing systems. | Team activity – food safety | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 AFNR Career Cluster, Statement 6 Manufacturing Career Cluster – Maintenance, Installation and Repair Pathway Statement 2 Manufacturing Career Cluster – Maintenance, Installation and Repair Pathway Statement 4 Manufacturing Career Cluster – Production Pathway 2 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
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| | | Manufacturing Career Cluster – Production Pathway 3 |
| FPP.01.02. Performance Indicator: Apply food safety and sanitation procedures in the handling and processing of food products to ensure food quality. | | |
| FPP.01.02.01.c. Identify sources of contamination in food products and/or processing facilities and develop ways to eliminate contamination. | Team activity – food safety Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 |
| FPP.01.02.02.c. Examine, interpret and report outcomes from safe handling procedures and results from quality assurance tests. | Team activity – food safety Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 |
| FPP.01.02.03.c. Interpret and evaluate results of quality assurance tests on food products and examine steps to implement corrective procedures. | Team activity – food safety Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 |
| FPP.01.03. Performance Indicator: Apply food safety procedures when storing food products to ensure food quality. | | |
| FPP.01.03.01.b. Analyze characteristics of food products and determine appropriate storage procedures. | Written exam | |
| FPP.01.03.02.c. Evaluate the effectiveness of a current documentation procedure used within a food products and processing facility and recommend improvements. | Team activity – food safety Written exam | |
| FPP.02.03. Performance Indicator: Apply principles of human behavior to develop food products to provide a safe, wholesome and nutritious food supply for local and global food systems. | | |
| FPP.02.03.02.c. Design new food products that meet a variety of goals (e.g., consumer preferences, market, nutritional needs, regulatory requirements, etc.). | Team activity – formulation Written exam | |
| FPP.03.01. Performance Indicator: Implement selection, evaluation and inspection techniques to ensure safe and quality food products. | | |
| FPP.03.01.01.c. Outline procedures to assign quality and yield grades to food products according to industry standards. | Evaluation Grading Questions Team Activity – value-based | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 Buying Goods and Services, Benchmarks: Grade 12, Statement 7 |
| FPP.03.01.02.b. Assemble procedures to perform quality-control inspections of raw food products for processing. | Evaluation Team activity – food safety Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 Buying Goods and Services, Benchmarks: Grade 12, Statement 7 |
| FPP.03.01.03.a. Identify and describe protocols for inspection and harvesting techniques for animal food products (e.g., pre-mortem and post-mortem inspections, Food Safety Inspection Service guidelines (FSIS), etc.). | Team activity – food safety and anatomy Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 Buying Goods and Services, Benchmarks: Grade 12, Statement 7 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
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| FPP.03.01.04.c. Evaluate and grade food products from different classifications of food products. | Team Activity – value-based, evaluation, grading and identification Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 1 AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 2 Buying Goods and Services, Benchmarks: Grade 12, Statement 7 |
| FPP.03.02. Performance Indicator: Design and apply techniques of food processing, preservation, packaging and presentation for distribution and consumption of food products. | | |
| FPP.03.02.01.b. Compare weights and measurements of products and perform conversions between units of measure. | Team Activity – value-based, evaluation, grading and identification | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 3 |
| FPP.03.02.02.c. Evaluate food quality factors on foods prepared for different markets (e.g., shelf life, shrinkage, appearance, weight, etc.). | Team Activity – value-based, evaluation, grading and identification Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 3 |
| FPP.03.02.03.a. Identify methods of food preservation and give examples of foods preserved by each method. | Team activity – quality, evaluation and identification Written exam | AFNR Career Cluster – Food Products and Processing Systems Pathway, Statement 3 |
| FPP.03.03. Performance Indicator: Create food distribution plans and procedures to ensure safe delivery of food products. | | |
| FPP.03.03.02.a. Examine the various paths food products take to get from food processing centers to consumers. | Identification Team activity – food safety Written exam | AFNR Career Cluster, Statement 7 AFNR Career Cluster – Food Products and Processing Pathway, Statement 3 Manufacturing Career Cluster – Logistics and Inventory Control, Pathway 2 Manufacturing Career Cluster – Manufacturing Product Process Development Pathway, Statement 1 Manufacturing Career Cluster – Manufacturing Product Process Development Pathway, Statement 2 Transportation, Distribution and Logistics Career Cluster, Statement 3 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.11-12.2 HS-ETSI-2 |
| FPP.03.03.03.c. Propose distribution plans for food products that meet specific market demands. | Evaluation Grading Identification Team activity – value-based Written exam | AFNR Career Cluster, Statement 7 AFNR Career Cluster – Food Products and Processing Pathway, Statement 3 Manufacturing Career Cluster – Logistics and Inventory Control, Pathway 2 Manufacturing Career Cluster – Manufacturing Product Process Development Pathway, Statement 1 Manufacturing Career Cluster – Manufacturing Product Process Development Pathway, Statement 2 Transportation, Distribution and Logistics Career Cluster, Statement 3 CCSS.ELA-Literacy.W.9-10.2 CCSS.ELA-Literacy.W.11-12.2 HS-ETSI-2 |
| FPP.04.01. Performance Indicator: Examine the scope of the food industry by evaluating local and global policies, trends and customs for food production. | | |
| FPP.04.01.01.b. Analyze the similarities and differences amongst policies and legislation that affect the food products and processing system in the U.S. or around the world. | Evaluation Grading Team Activity – value-based and food safety Written exam | HS-ETSI-3 Buying Goods and Services, Benchmarks: Grade 12, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 2 |

| Measurements Assessed | Event Activities Addressing Measurements | Related Academic Standards |
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| FPP.04.01.02.c. Devise a strategy to create food products that meet a specific consumer trend in a specific market. | Evaluation Grading Team Activity – value-based, formulations and questions Written exam | HS-ETSI-3 Buying Goods and Services, Benchmarks: Grade 12, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 2 |
| FPP.04.01.03.b. Analyze food production and distribution outcomes based on cultural customs. | Grading Evaluation Team Activity - formulation Written exam | HS-ETSI-3 Buying Goods and Services, Benchmarks: Grade 12, Statement 1 Buying Goods and Services, Benchmarks: Grade 12, Statement 2 |
| FPP.04.02. Performance Indicator: Evaluate the significance and implications of changes and trends in the food products and processing industry in the local and global food systems. | | |
| FPP.04.02.01.b. Analyze and document significant changes and trends in the food products and processing industry. | Grading Evaluation Team Activity - formulation Written exam | NSFL Buying Goods and Services, Benchmarks: Grade 12, Statement 1 |