

The 4-H'ers  
Guide to  
Showcase  
Showdown

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## SCHEDULE OF EVENTS

### Tuesday, June 20

- 10:00 – 12:00 Registration/Check-in at UW Conference Center
- 12:00 pm Welcome – Salon C, D, E
- 1:00 pm Robotics – Salon A and B
- 1:00 pm Food Cook Off – Hilton Ballroom
- 1:30 pm WORKSHOP: Bug Stick Making – UW School of Pharmacy (*cap at 16 and 2 chaperones*)
- 1:30 pm WORKSHOP – Admissions Presentation (Meet @ Registration table at 1:00pm to walk over to main campus)
- 2:00 pm Livestock Skill-A-Thon - Salon F and G
- 2:00 pm WORKSHOP: Innovation Wyrkshop, Wire Wizardry – EERB
- 2:15 pm WORKSHOP: Campus Tour (Meet @ Registration table at 1:00pm to walk over to main campus)
- 3:00 pm WORKSHOP: Yarn Wreath making – Salon E
- 6:30 pm Pizza Night – Half Acre West Lobby and Classroom- **Dinner INCLUDED WITH \$40 REGISTRATION, Anyone wanting to eat Pizza will need to be registered or pay at the door to get meal ticket.**
- 6:30 pm Fun and Games (Dodgeball game, Puzzle Challenge, Open Pool, Open Gym) – Half Acre Gym

### Wednesday, June 21

- 7:30 am Registration/Check-in at UW Conference Center
- 8:00 am WORKSHOP - Drone Event – Salon C, D and E
- 8:30 am Hippology Contest – Hansen Arena
- 9:00 am Prepared and Impromptu Presentation Contests – Salon B, F and G
- 9:00 am WORKSHOP: Fishing Trip Huck Finn Pond, leave from UW Conference Center
- 10:00 am Cake Decorating Contest Round 1 – Hilton Ballroom
- 10:00 am WORKSHOP: Stem Building Challenge - SALON A
- 11:00 am WORKSHOP: Innovation Wyrkshop, - EERB
- 12:00 pm Cake Decorating Contest Round 2 – Hilton Ballroom
- 12:00 pm WORKSHOP: Sausage Making – UW Meat Lab Animal Science Bld.
- 1:00 pm Produce Judging Coaches meeting – Salon C and D
- 1:00 pm WORKSHOP: Take a Hike, leave from UW Conference Center

**Wednesday, June 21 Continued**

- 1:00 pm        WORKSHOP: Planetarium Show – Physical Sciences  
1:30 pm        Produce Judging Contest – Salon C and D  
2:00 pm        Dog Skill-A-Thon – UW Wool Lab  
2:30 pm        WORKSHOP: Suminagaski Marbling and Origami Art – Hilton Ballroom  
4:00 pm        Table Setting – Salon A and B  
7:00 pm        Ice Cream Social – Hilton Ballroom  
9:00 pm        Dance - Hilton Ballroom

**Thursday, June 22**

- 8:00am        Breakfast – Salon C, D, E  
8:30am        Awards Breakfast and Ceremony – Salon C, D, E  
**Breakfast INCLUDED WITH \$40 REGISTRATION, Anyone wanting to eat breakfast will need to be registered or pay at the door to get meal ticket.**  
                  Leadership Team Announcement, Cake Decorating, Dog Skill-a-thon, Food Cook Off, Hippology, Livestock Skill-a-thon, Presentations, Produce Judging, Table Setting Salute to Excellence Award Presentation

# 2023 SHOWCASE SHOWDOWN

## Registration Process and Timeline

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(307) 766-3430    rtroudt@uwyo.edu  
www.wyoming4h.org

## TIMELINE

**APRIL 17, 2023**

● Online Registration available. Youth/Families register online for conference. ([www.wyoming4h.org](http://www.wyoming4h.org))

● Individual online registration due to State 4-H Office.

**JUNE 1, 2023**

**JUNE 1, 2023**

● ALL counties receive excel sheet with all county registrants.

● County changes due to State 4-H Office (Excel Sheets)

**JUNE 5, 2023**

**JUNE 12, 2023**

● Team designations due to State 4-H Office.

● Contest schedules sent by contest chairs to participants in scheduled contests.

**JUNE 16, 2023**

**\*\*County changes/additions can be made until 6/5 at 12 a.m. with no penalties. Cancelled registrations made after 6/5 will be charged full fee amount. \*\***



## Financial Break Down

Families: Your 4-H Educator can help you afford Showcase Showdown!

### **Registration**

Cost: \$40

Includes: Workshop and contest costs, a t-shirt for all registered youth and 1 dinner, 1 desert night and 1 breakfast.

### **Food/Lodging**

Hotel Block:

- \$ 189.00 for one night stay
- \$ 378.00 for two night stay

Dorm Rooms with dining hall meals:

- Those staying in the dorm halls must eat 2 meals a day for every night stayed. (There will be 2 meals that will be part of registration that you won't have to pay for a meal in the dining center. The 2 meals essentially will count for one of your required two meals a day you stay in the Halls)
- 1 night (double Room) \$ 25.00
- 1 nights (single Room) \$ 32.00
- 2 nights would be the 1 night rate doubled.

Meals in Washakie Dinning Center (All you can eat):

Breakfast	\$9.00
Lunch	\$12.00
Dinner	\$12.00

### **Travel**

Carpooling in a 7 passenger gas powered vehicle:

- From Jackson, Cody, Sheridan, Evanston: ~\$120-\$150 round trip (\$18-22/person)
- From Gillette, Rock Springs, Riverton: \$80-\$100 round trip (\$12-14/person)
- From Casper, Douglas, Rawlins, Wheatland, Torrington: ~\$30-\$60 round trip (\$5-9/person)

Ways to cut travel costs more: use 8+ passenger vehicles, ask your 4-H Educator if they can drive you in the county extension office vehicle....

### **How can I fundraise?**

1. Call your 4-H Educator and ask them if one of the following entities will give a flat donation or match dollars you raise: 4-H Leader's Council, County 4-H Foundation, 4-H Office Event budget. Most of these groups have paperwork you need to fill out or ask you to write a letter explaining how you will use the funds.
2. Sales! Ask your local feed store, hardware store, or grocery if you can hold a bake-sale, during set times of the week. At a team practice one night wrap lollipops with colorful ribbon and a paper decoration for different holidays (Valentines Day, St. Patrick's Day, Easter, Earth Day, Memorial Day) and sell them at a community event or high school sports game.

What the WY 4-H Foundation is doing for you: Cut's what the registration would normally be in half to make it more affordable for participants.

# CAKE DECORATING *Showcase Showdown*

## CONTEST DETAILS

- Individual Contest
- All WY 4-H Members
- Fun way to be artistic and creative
- 1 hour 15 minute contest
- Themed events, Participants will be informed of the theme at the start of the event
- Participants must provide ALL equipment needed except icing, cake boards and cake forms

**Individual  
Contest**



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# DOG SKILL-A-THON

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- 1 hour 15 min contest per age division
- All members regardless if they are on a team will compete as individuals
- Teams may consist of 3 - 4 youth
- Use your knowledge gained in the 4-H Dog Projects in four parts (Quiz Bowl, breed identification, identifying parts and skill-a-thon (hands-on))
- Participants do not need to own a dog or be in the 4-H Dog Project

**Individuals  
& Teams**



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# FOOD COOK OFF

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- Team contest consisting of 2-4 Youth
- 1 - 2 hour contest
- Theme: Family Movie Night Entrée
- Team recipes will be drawn on June 1st
- Interview judging: knowledge of your plate, nutrition, food safety, serving size and cost
- Senior teams compete for eligibility at National Competitions

**Team  
Contest**



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# HIPPOLOGY CONTEST

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- Team contest consisting of 2 - 4 youth
- 3 hour contest
- Knowledge in equine science and management
- Station phase, evaluation phase and a team problem presentation
- Senior teams also complete an exam phase
- Senior teams compete for eligibility at National Competitions

**Team  
Contest**



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# LIVESTOCK SKILL-A-THON

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- Team contest consisting of 3 - 5 youth
- 3 hour contest
- Knowledge of animal science and livestock management practices
- Content covers Beef, Sheep, Swine and Goats; breeds, wholesale cuts, feed & equipment identification, quality assurance along with meats, and wool and hay judging for seniors
- Senior teams compete for eligibility at National Competitions

**Team  
Contest**



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# IMPROMPTU PRESENTATIONS

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- 10 - 15 minute contest
- Work on presenting/ public speaking
- This contest is great for a judging team; as it helps with the same skills you use for Reasons
- No prep work, no presentation or props needed. Youth will be given three topics and will choose one
- Seniors compete for eligibility at National Contest or Trip

### Individual Contest



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# PREPARED PRESENTATIONS

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- 15 - 30 minute contest
- Work on presenting/ public speaking  
This can be something you
- presented for your 4-H Club, a project you made for a science fair, FFA Speech, or a topic you are interested or passionate about
- Seniors compete for eligibility at National Contest or Trip

### Individual Contest



# PRODUCE JUDGING *Showcase Showdown*

## CONTEST DETAILS

- All WY 4-H Members
- Individual and Team Contest
- 3 hour contest
- Up to 8 classes of produce will be evaluated
- Identification Line, Questions and/or Reasons
- Senior teams compete for scholarships to attend a National Trip

**Individuals  
& Teams**



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# ROBOTICS CONTEST

## *Showcase Showdown*

### CONTEST DETAILS

- All WY 4-H Members
- Team contest consisting of 1 - 4 youth
- 4 hour contest
- Knowledge in programming, problem solving and engineering
- Teams will compete in two competitions; Mission Challenge and Mini Sumo Robot
- Teams will also be judged on their interviews

**Team  
Contest**



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# TABLE SETTING *Showcase Showdown*

## CONTEST DETAILS

- All WY 4-H Members
- 1 - 2 Hour contest
- Members who have creative minds and enjoy hosting/ planning events
- Before the event, participants need to choose a theme and purchase all items needed for one place setting
- Provide a menu to be displayed with your place settings.
- Judging will be done for each item

## Individual Contest



## CAKE DECORATING

Contact:

Sara Fleenor (sfleenor@uwyo.edu)

### Eligibility

- Open to all 4-H youth (excluding Clover Buds)
- Entries are open to individuals.
  - Juniors Individuals ~ 8-10 years old
  - Intermediates Individuals ~ 11-13 years old
  - Seniors Individual ~ 14-18 years old
- Counties may enter as many individuals as are eligible.
- **Pre-registration is required to ensure adequate materials are available.**

### Materials

•The contest will provide foam cake dummies and white butter cream frosting. Individuals must bring ALL other supplies.

- Senior Individuals will be given rectangle cake forms.
- Junior & Intermediate individuals will be given round cake forms.
- 10 minutes with their coach to frost their cake dummy.

•Contestants must provide ALL equipment necessary to complete their creation – i.e., tools, tips, bags, stamps, coloring, specialty icing, fondant, utensils, etc. This includes bowls for mixing, spoons, paper towels and other cleaning supplies, aprons, gloves, and *everything else* that may be needed! You will need a larger bowl to get your white frosting from a contest official.

•Running water will NOT be readily available in the room. Contestants will have limited access to a sink for clean up after the contest is over. However, contestants must make provisions for cleaning their own equipment. DO NOT clean anything in the bathrooms.

### Format and Proceedings

- Scheduled times for competition will be sent out prior to the event.
- Each team/individual will be given half of an 8-foot table as workspace,
- Contestants will have up to one (1) hour to complete their creation. There will be a 10-minute prep time. During this time coaches can assist junior and intermediates in planning and applying the base coat.
  - a) Coaches will be given 10 minutes of time to assist juniors and intermediates individuals.  
Coaches can assist with the base frosting of the cake.

- b) Coaches will be given five (5) minutes of plan time to assist senior individuals. Coaches can only help with planning; they may not frost or assist in any other way.
- c) After the time allotted above coaches may not have contact with or help contestants. If coaches do not abide by this rule, they may be asked to leave the area and teams may be disqualified.

•This will be a themed event. Youth will be informed of the topic/theme/subject for their creation upon the start of the event.

- Judges will be roaming during the event evaluating teamwork, technique, theme representation, food safety practices and cleanliness, organization, etc.
- *Proper food safety practices will be encouraged and included in evaluations by judges.*

### Synopsis

Individuals arrive and find their workspace. They will have a few minutes to “set up”/organize their space. Judges will be introduced.

Basic information will be shared with everyone regarding facilities, practices, any parameters, or adjustments that need to be made due to facilities, circumstances, etc. The topic/theme will be announced, and contestants will have 10 minutes to develop a plan for their creation (see formatting and proceeding section for more information). The clock will be started AFTER the 10-minute prep time and contestants will have a maximum of one (1) hour to decorate.

Youth will then create their masterpieces! Upon the timer ending the event, everyone will be asked to stop, put their tools down, and remain by their creation. Judges will visit with each individual about their inspiration, plan, steps they took, involvement, challenges, etc. Finished cakes will be grouped and judged after the event.

## DOG SKILL-A-THON

Contact:

Amber Armajo ([amwall@uwyo.edu](mailto:amwall@uwyo.edu))

### **Overview**

The State 4-H Dog Skill-A-Thon is an opportunity for youth interested in dogs to compete using knowledge gained in the 4-H Dog Project. The purpose of the competition is to:

- Help youth learn the techniques of logical and accurate decision making
- Teach youth to recognize the reasons for their decisions.
- Help youth with career guidance.
- Encourage 4-H members to assume responsibility for their decisions and actions.
- Encourage 4-H members to establish goals and determine a course of action that will assist them in accomplishing those goals.

### **Eligibility**

This contest is open to all youth enrolled in the Wyoming 4-H Program. Members are not required to exhibit animals at a show. Eligibility will be determined through ZSuite.

### **Teams**

Teams shall consist of a minimum of three (3) members and a maximum of four (4) members. There is no limit on the number of teams that can be entered in each age division. All members competing on a team must be within the age requirements of Junior (8-13) or Senior (14-18) for their respective team. If there are not enough members to complete a team, they may participate as individuals.

### **Individuals**

All members, regardless of whether or not they are on a team, will also compete as individuals. Counties not having enough members to fill a team are encouraged to send individuals to participate in the contest. There is no limit to the number of individuals able to compete in the contest. Individual age groups will be Junior (8-10), Intermediate (11-13), and Senior (14-18).

### **Contest**

The contest will consist of four parts. The first part will be in Quiz Bowl fashion where participants will answer 25 questions appropriate for their age category (junior, intermediate, senior). Questions will have a two point value for seniors and a one point value for juniors and intermediates. Questions will be taken from the Study Guide (which is posted on the Wyoming 4-H [Website](#)).

The second part will be breed identification. Participants will be required to name the breed and group in which the dog belongs. Contestants will receive one point for each correctly identified breed and one point for each correctly identified group. Only AKC recognized breeds in the main seven recognized groups (Sporting, Non-Sporting, Toy, Terrier, Hound, Working, and Herding) will be used. Juniors and

Intermediates will identify 25 breeds and Seniors will identify 50 breeds. If the officials can determine the breed the youth is identifying, spelling will not be counted against the contestant. However, the number of correct breeds will be used for a tie breaker. Breakdown of breeds for each age division can be found at: <http://www.uwyo.edu/4-h/opportunities/state-contests/showcase-showdown/dog-skillathon.html>

The third part of the contest will consist of identifying the correct parts, internal organs, and skeletal structure of a dog, participants will be asked to identify five parts in each section. Juniors and Intermediates will be asked to correctly identify the parts and internal organs of a dog. Seniors will be asked to correctly identify the parts, internal organs, and skeletal structure of a dog. Three points will be given for each correct answer. Diagrams that will be used for the contest can be found at : <http://www.uwyo.edu/4-h/opportunities/state-contests/showcase-showdown/dog-skillathon.html>

The fourth part of the contest will consist of a skill-a-thon (hands-on). Contestants will be asked questions, scenarios or identify topics related to subject areas. Seniors will answer 15 questions, Juniors/Intermediates will answer 10 questions. Three points will be given for each correct answer.

#### **Junior/Intermediate/Senior:**

##### **Conformation**

Tail Types

Ear Types

Bite Types

Eye Types

##### **Anatomy**

Anatomy of the Foot-Bone of the Foot

Anatomy of the Footpads and Phalanges

Care, Handling, Health, and Management

Bathing Techniques

External Parasites

Canine Safety and Sanitation

Dog Sports

Dog Care and Equipment

#### **Seniors Only:**

##### **Conformation**

Front and Rear Leg Conformation

Backline Conformation

##### **Care, Handling, Health, and Management**

Nail Health and Trimming

Health Records

Internal Parasites

Behavioral Postures

The Dog Skill-A-Thon Contest will have a total of 240 points for Seniors and 135 points for Juniors/Intermediates.

Senior Juniors/ Intermediates

	Senior	Juniors/Intermediates
Section 1 – Quiz Bowl	50 points	25 points
Section 2 – Breeds	100 points	50 points
Section 3 – Parts	45 points	30 points
Section 4 – Skill-A-Thon	45 points	30 points

### **Awards**

Awards will be given to the top three teams in each age division (junior and senior) and to the top ten individuals in each age division (Junior, Intermediate, and Senior).

### **Study Materials**

The Wyoming 4-H website (<http://www.uwyo.edu/4-h/opportunities/state-contests/showcase-showdown/dog-skillathon.html>) will offer a variety of study materials. The Dog Learning Laboratory Kit distributed through the Ohio Agriculture Education Curriculum Materials Service (available at county extension offices) can also be used.

## Wyoming 4-H Food Cook Off

Contact:

Gretchen Gasvoda-Kelso (gasvoda@uwyo.edu)

### Eligibility/Rules

1. Junior/Intermediate age division 8-13 years of age by January 1 of current year  
Senior age division 14-18 years of age by January 1 of current year
2. An individual can only enter on one team.
3. Teams consist of 2-4 members from the same age division.
4. Each team must supply their own equipment for the contest. Allowed equipment is listed; not all are required, but nothing can be added. Equipment will be checked in and unapproved items will be removed.
5. Teams are allowed to use: (1) electric skillet and/or (1) single and/or (1) double hot plate. Only 2 heating items allowed. No oven or microwave will be allowed.
6. Each team should dress appropriately for the preparation of food (no full or draping sleeves; closed-toe shoes only; hair appropriately restrained, etc.) Each team can coordinate clothing, aprons, etc.
7. Teams will bring all the ingredients needed. All ingredients will be prepared during the contest; no precut, premeasured, or precooked food/ingredients allowed.
8. First place Senior Team is eligible for a state learning opportunity with master chefs (TBD) or trip to National Food Cook Off in Texas if available and warranted.
9. No communication with coaches or parents during contest or team will be disqualified.  
Questions can be directed to Food Cook Off Coordinators.

### Contest Procedures:

#### Senior Team Responsibilities:

- Bring tote with supplies and ALL ingredients.
- Create an entrée using Egg Plant:
- Mystery Ingredient will be supplied by the committee.
- Prepare entree, plan presentation, determine cost of dish and clean up assigned area in 1 hour.
- Teams will be evaluated on teamwork, food safety, skills, in addition to a 5-minute interview judging. Interview Judging Presentation should include knowledge of My Plate, nutrition knowledge, chronic disease prevention, food preparation, safety concerns, and practices, serving size information, and cost analysis of the entree.
- Appearance, creativity, effective communication, and teamwork will be scored as well.

Resources available during contest: (no cell phones)

- Choose My Plate - 10 Tips to a Great Plate
- Fight Bac - Fight Foodborne Bacteria brochure
- Nutrient Needs at a Glance
- Plain, white paper
- Grocery receipts (bring your own)

\*\*\*\*Reminder there will be limited sinks available, bring totes for dirty dishes and NO WASHING DISHES in the restrooms.

Junior/Intermediate Team Responsibilities:

- Bring tote with supplies and ALL ingredients.
- 3 recipes will be provided to practice before the contest.
- Teams will draw one of the three recipes provided on a live Facebook call Monday June 7 at noon.
- A mystery ingredient will be provided.
- Teams may alter, add, or substitute ingredients (not required)
- Prepare entree, plan presentation, determine cost of dish and clean up assigned area in 1 hour.
- Teams will be evaluated on teamwork, food safety, skills, in addition to a 5-minute interview judging.
- Interview Judging Presentation should include:
  - Knowledge of My Plate, Nutrition Knowledge, Chronic Disease Prevention, Food Preparation, Safety Concerns, and Practices, Serving Size Information, and Cost Analysis of the Entree. Appearance, Creativity, Effective Communication and Teamwork will be scored as well.
- Resources available during contest: (no cell phones)
  - Choose My Plate - 10 Tips to a Great Plate
  - Fight Bac - Fight Foodborne Bacteria Brochure
  - Nutrient Needs at a Glance
  - Plain, white paper
  - Grocery receipts (Bring your own)

\*\*\*\*Reminder there will be limited sinks available, bring totes for dirty dishes and NO WASHING DISHES in the restrooms.

Tips for Success:

- Practice, Practice, Practice - ask for guidance: 4-H Educator, local chefs, or 4-H Leaders
- Participate in Mock Cook Off Contests - county and/or area.
- Utilize ALL Team Members: planning, washing, chopping, cooking, preparing interview presentation information, communicating with each other, cleaning area - be a TEAM.
- Make a PLAN: delegate.
- Double Check Equipment Tote - practice cooking with electric skillet and hot plate burner practice using the can opener, grater, food thermometer, etc.
- Options: TEAM matching aprons, shirts, chef hats

Be Creative ~ Have FUN!

State 4-H Office/Committee Responsibilities:

- Provide a table for team to participate.
- Provide power strips and extension cords
- Provide mystery ingredient for Senior and Junior teams
- Provide judges: for observing food prep and for presentation of entrée.

Senior Supply List

Each team will bring an equipment tote containing ONLY ONE each of the following items, unless noted:

Beverage Glass	Measuring Spoons (2 Set)
Bowls:	Non-stick Cooking Spray
Dip Size (1)	Note Cards (3x5)
Mixing (2)	Paper Towels (1Roll)
Serving (2)	Pancake Turner
Calculator	Pencils (No Limit)
Can Opener	Plastic Box and Trash Bags for Dirty Equipment
Cookie Sheet	2 Pots with Lids
Colander	Potato Masher
Cutting Board (3)	Sanitizing Wipes (1 Container)
Disposable Tasting Spoons	Potato Peeler
Dry Measuring Cups (1 Set)	Dinner Serving Plates (2)
Electric Skillet	Serving Utensils
Extension Cord	Skewers (1 Set)
Food Thermometer	Spatulas (2)
Forks (2)	Stirring Spoons (6)
Gloves	Storage Bags (1 Box)

Liquid Measuring Cup (2 Cup Size)  
Hand Sanitizer  
  
Hot Pads (up to 5)  
Kitchen Shears (1 Pair)  
Kitchen Timer  
Knives (4)

Tongs  
Two Single-Burner Hot Plates OR one Double-Burner Hot Plate (Electric)  
Whisk  
Zester/Grater

### Junior/Intermediate Supply List

Each team will bring an equipment tote containing ONLY ONE each of the following items, unless noted:

Beverage Glass  
Bowls: Dip Size (1)  
          Mixing (2)  
          Serving (2)  
Calculator  
Can Opener  
Silverware Knives (2)  
Colander  
Cutting Board (3)  
Disposable Tasting Spoons  
Dry Measuring Cups (1 Set)  
Electric Skillet  
Extension Cord  
Food Thermometer  
Forks (2)  
Gloves  
Liquid Measuring Cup (2 Cup Size)  
Hand Sanitizer  
Hot Pads (up to 5)  
  
Kitchen Shears (1 Pair)  
Kitchen Timer (electric)  
Knives (4)  
Hand Chopper

Measuring Spoons (2 Set)  
Non-stick Cooking Spray  
Note Cards (3x5)  
Paper Towels (1 Roll)  
Pancake Turner  
Pencils (No Limit)  
Plastic Box and Trash Bags for Dirty Equipment  
2 Pots with Lids  
Potato Masher  
Sanitizing Wipes (1 Container)  
Potato Peeler  
Serving Plates (2)  
Serving Utensils  
Skewers (1 Set)  
Spatulas (2)  
Stirring Spoons (6)  
Storage Bags (1 Box)  
Tongs  
Two Single-Burner Hot Plates OR one Double-Burner Hot Plate  
Whisk  
Zester/Grater

## HIPPOLOGY

Contact: Dawn Sanchez ([dawns@uwyo.edu](mailto:dawns@uwyo.edu)) and  
Amber Armajo ([AMWall@uwyo.edu](mailto:AMWall@uwyo.edu))

### OBJECTIVE

Provide an opportunity for youth to demonstrate their knowledge and understanding of equine science and management.

### ELIGIBILITY

- All Wyoming 4-H members are eligible to compete in the appropriate age division. Eligibility will be confirmed using zSuite. Juniors, 8-13 years old and Seniors, 14-18 years old
- This is a team contest only. Teams may consist of two (2) to four (4) members with youth from the same age group. Counties may enter as many teams as they would like. All team members must be in the same age division and from the same county.

### Team Division (Junior. & Senior)

Evaluation Phase

Station Phase

Team Problem

Examination Phase (Senior. ONLY)

**\*Each division will be scored separately.**

### MATERIALS

- National 4-H Curriculum found online at <http://www.4-h.org/resource-library/curriculum/4-h-horse/> or through your local 4-H/Extension office.
- OHIO Learning Lab HORSE Kit – check with your local 4-H/Extension Office.
- WY State Livestock Board online at <http://wlsb.state.wy.us>
- USDA Animal and Plant Health (APHIS) at <http://www.aphis.usda.gov/wps/portal/aphis/home/>
- Equine Science third edition by Rick Parker.
- Wyoming 4-H Horse Hippology Kit
- Horse Smarts - American Youth Horse Council

### CONTEST

The contest will consist of the following phases. They may or may not happen in the order listed. Talking amongst team members is encouraged for all phases.

### EVALUATION PHASE (ALL)

Youth will evaluate one “live” class of Halter Horses, 50 points possible, and answer a set of questions on this class, 50 points possible (5 questions, 5 points each). This class will be separate from the Horse Judging contest and will be ran first thing. (100 points possible)

STATION PHASE (ALL)

This phase will consist of a series of tables where all contestants will respond to the requirements of the station. At each station a picture or object may be present. Contestants may be asked to describe or demonstrate the use of an item. There will not be a time limit.

Juniors	7 stations	70 possible points	(Chosen from Junior list below)
Seniors	10 stations	100 possible points	(Chosen from all listed below)

*Examples of stations are:*

Juniors Seniors

- Types & parts of saddles
- Bridles
- Horse colors, description & markings
- Horse breeds
- Horse events
- Farrier tools & the hoof
- Horse skeleton, internal & external parts
- Horse equipment
- Gaits & defects
- Bits
- Defects, blemishes & general unsoundness
- Health, nutrition & feed samples
- Safety & use of knots and hitches
- Parasites
- Breeding
- Teeth
- Evolution

*\*\*Stations are set for a period of 3 years for consistency and will be re-evaluated and edited in 2024. Please bring any concerns or suggestions you have to the contest contact/ coordinator.*

EXAMINATION PHASE (Senior Teams)

This phase of the contest will have written questions with multiple choice and true/false answers as well as questions answered from viewing projected slides. The slides will be based on anatomy and may

include external, skeletal, internal organs, parts of gastrointestinal tract, male and female reproductive organs, detailed anatomy of the foot, and detailed anatomy of the lower limbs. (100 points possible)

#### TEAM PROBLEM

A hypothetical problem will be presented to each team. Juniors will be given a scenario prior to the contest. Seniors will be given the problem at the contest.

As a team, contestants will have up to 10 minutes to discuss the problem. Immediately following that discussion, all members on the team will have up to five (5) minutes to present the solution. All team members must participate in the discussion and presentation. Responses should include not only “how” but “why”, with special attention given to the rationale leading to the response.

Evaluation will be based on the understanding of the problem, completeness of the response, the probability of success of the solution or procedures and the logic used in making the oral response. The official may ask questions of any or all team members to clarify the presentation.

(100 points possible)

*Examples of possible team problems might include:*

#### Juniors (8-13)

1. Establishment of a new stable
2. Information on horses
  - a. How to look
  - b. Where to look
  - c. How to use
  - d. Suppliers of information (specialty)
  - e. Duplicating or repeating information
3. Behavior problems
4. Horse farm management
5. Training and conditioning programs
6. Health care

#### Seniors (14-18)

1. Balancing a horse’s ration
2. Breeding and/or leasing contracts, specific clauses for insurance, liability, payments, care termination, transport, etc.
3. Teaching lessons in horse management.

#### Scoring

##### Junior Teams

Stations = 70% of score; Evaluation = 10% of score Group Think = 20% of score

##### Senior Teams

Stations = 60% of score; Evaluation = 10% of score

Group Think = 20% of score; Exam – 10% of score

## **Livestock Skill-A-Thon**

Contact: Dawn Sanchez ([DawnS@uwyo.edu](mailto:DawnS@uwyo.edu)) or Bryce McKenzie ([bmckenz7@uwyo.edu](mailto:bmckenz7@uwyo.edu))

### **Objectives**

- To educate and encourage youth in the areas of Science, Engineering and Technology, enhancing their understanding and abilities as it relates to Livestock and the Livestock Industry.
- To provide youth with the opportunity to blend knowledge and skills acquired in livestock judging, demonstrations, care, and exhibition of animals into one activity.
- To provide youth with an opportunity to learn about the importance of livestock and their products to the environment and economy.
- To encourage youth to continue expanding their knowledge and participation.
- To recognize youth for their total involvement in and comprehension of the livestock industry.
- To encourage youth to work as a team and learn the value and appreciation of teamwork.
- To instill ethical values, good sportsmanship, and product evaluation skills.

### **Eligibility**

- All Wyoming 4-H members are eligible to compete in the appropriate age division (Junior (8-13 years old or Senior 14 & older). Eligibility will be confirmed using ZSuite.
- Only team entries will be accepted and may consist of a minimum of three (3) and maximum of five (5) members per team. There is no limit to the number of teams entered in each age division from each county.

### **Rules**

- Youth may enter the contest with blank paper, clipboards, a timer and writing utensils.
- Teams will have two (2) hours to complete the entire contest. This includes the group process and technology components.
- Spectators are welcome to enter and view the contest from the perimeter but will not be able to interact with the contestants during the event.
- Youth are **encouraged** to work together and interact throughout the event with those on the same team. Discussion between separate teams is not allowed.
- Team scores from each class will be added together for total accumulated points. Awards will be given to the top three teams in each age division.

## Contest Classes - Junior Divisions

All materials for the contest will be taken from the Livestock Discovery CD from the University of Kentucky, Ohio State University lab kits, or the State 4-H website.

**Cattle:** (15 points) Breeds identification; wholesale parts, external parts.

**Sheep:** (15 points) Breeds identification; wholesale parts, external parts.

**Swine:** (15 points) Breeds identification; wholesale parts, external parts.

**Goat:** (15 points) Breeds identification; wholesale parts, external parts.

**Quality Assurance:** (10 points) Reading a medicine label; calculating withdrawal times; complete a treatment record; given a scenario, make responsible management decisions regarding Quality Assurance; Quality Assurance hands-on activity.

**Feed Identification:** (10 points) Youth will be given a group of feeds to identify. These can include feed additives, minerals, vitamins, forages, grains and more.

**Evaluation:** (5 points) Youth will be given either classes to place of beef, sheep, swine, or goats; or given questions to answer about a set of animals.

**Equipment Identification:** (10 points) Youth will be given either pictures or real pieces of equipment to identify.

**Practicum:** (20 points) Each team will be given 20 minutes to complete this process. All teams will be presented with the same practicum within age divisions. As a group they will be asked to complete a task, solve a problem, or answer questions. The practicum may require each team member to complete a part of the practicum. Props or live animals may be included in this hands-on portion of the contest. The Junior practicum will be posted on the State 4-H website by April 15. (See pages 4-5 for topics.)

**Juniors Total Points Possible: 115 points**

## Contest Classes ~ Senior Division

The Wyoming State 4-H Website provides a list of various sources that will aid in preparing for the senior Livestock Skill-a-Thon contest. However, the contest is not limited to the information provided in these resources.

**Cattle:** (20 points) Breeds identification; external parts, wholesale parts, reproduction/health

**Sheep:** (20 points) Breeds identification; external parts, wholesale parts, reproduction/health

**Swine:** (20 points) Breeds identification; external parts, wholesale parts, reproduction/health

**Goat:** (20 points) Breeds identification; external parts, wholesale parts, reproduction/health

**Meat Science:** (10 points) Rank classes of meat cuts, identify cuts for wholesale and retail names, solve scenarios, answer questions and/or grade meat cuts/carcasses. (See page 6 for list of identifications.)

**Wool:** (5 points) Youth will be given either classes of four fleeces to place; or given scenarios or questions to answer about fleeces.

**Quality Assurance:** (10 points) Reading a medicine label; calculating withdrawal times; Complete a Treatment record; Given a scenario, make responsible management decisions regarding Quality Assurance; Quality Assurance hands-on activity.

**Feeds and feeding:** (10 points) Youth will be given a group of feeds to identify. These can include feed additives, minerals, vitamins, forages, grains and more. Solve scenarios or answer questions related to feeding options.

**Evaluation:** (5 points) Youth will be given either classes to place of beef, sheep, swine, or goats; or given scenarios or questions to answer about a set of animals.

**Equipment Identification:** (10 points) Youth will be given either pictures or real pieces of equipment to identify; or given scenarios or questions to answer about equipment.

**Technology:** (10 points) Contestants will use the NCBA Red Book Excel program to answer questions related to herd management. A computer with the program will be provided for the contest. This section

can be completed any time during the contest; however, teams will have a maximum of 20 minutes to complete this section.

**Practicum:** (30 points) Each team will be given 20 minutes to complete this process. All teams will be presented with the same practicum within age divisions. As a group they will be asked to complete a task, solve a problem, or answer questions. The practicum may require each team member to complete a part of the practicum. Props or live animals may be included in this hands-on portion of the contest. The Senior will be given three of the practicum topics and one of the three will be included in the state contest. These three topics will be posted on the State 4-H website by April 15. (See pages 4-5 for topics.)

**Senior Total Points Possible: 170 points**

### **PRACTICUM Information**

Each team will be given 20 minutes to complete this process. All teams will be presented with the same practicum within age divisions. As a group they will be asked to complete a task, solve a problem, or answer questions. The practicum may require each team member to complete a part of the practicum. Props or live animals may be included in this hands-on portion of the contest. Topic areas will be taken from the following list:

### **JUNIORS OR SENIORS**

- Demonstrate how to read an animal health product label, calculate dosage rates and withdrawal times, complete a treatment record, be familiar with administration routes and vaccination sites, fill a syringe, and define vaccination terms.
- Demonstrate how to bandage or unbandage a wound.
- Properly approach, halter/or and restrain a sheep or goat. Could be live animals or props.
- Understand biosecurity for various species to maintain herd health on the facility.
- Evaluate a breeding animal scenario and make animal selection decisions based upon performance data to rank breeding animals for use within the scenario and/or with live animals.
- Determine age of animal.
- Know the difference between identification methods and demonstrate proper tagging, notching or tattooing procedures. Be able to read and answers questions on RIFD tags and/or scrapie tags.
- Be able to read a feed label, compare labels, determine ingredients, species acceptability and make feed recommendations.
- Figure any of the calculations outlined in the table below.

## PRACTICUM Information Continued

### SENIORS ONLY

- Administer an implant.
- Properly trim a hoof and doctor ailments such as foot rot.
- Demonstrate knowledge of semen handling.
- Demonstrate all or segments of an AI procedures on any species.
- Complete a pregnancy examination/check.
- Label the parts of the reproduction tract and explain the role of each part.
- Label parts of the animal's digestive system and know what the function of each part is.
- Evaluate feed rations and rank feed ration to meet a specific livestock production scenario.
- Evaluate different animal housing situations or scenarios.
- Evaluate photos of carcasses and price carcasses using a grid.

For the practicum youth may be asked to figure any of the calculations outlined in the table below.

#### Junior Contestants

Rate of gain  
Average daily gain  
Feed per pound of gain  
Feed cost  
Feed cost per pound of gain  
Weight per day of age

#### Senior Contestants

Rate of gain  
Average daily gain  
Feed per pound of gain  
Feed cost  
Feed cost per pound of gain  
Weight per day of age  
Shrink  
Carcass breakeven cost  
Carcass profit margin per pound  
Performance ratio  
Feeding margin  
Feeding margin per pound  
Break even cost per pound  
Percent shrink  
Break even cost

**Meat Identification List - Seniors**

Items in the meat identification portion will be taken from the following list:

	<b>Wholesale Cut</b>	<b>Retail Cut</b>
<b>Beef</b>		
	Loin	T-Bone Steak
		Round Bone Sirloin Steak
	Round	Round Steak
		Eye Steak
	Chuck	Blade Roast
		Arm Roast
	Plate	Short Ribs
	Flank	Flank Steak
	Shank	Cross Cuts
	Rib	Ribeye Steak
<b>Pork</b>		
	Loin	Blade Chop
		Top Loin Chop
		Center Loin Roast
		Rib Chop
		Sirloin Chop
		Canadian Style Bacon SM^
	Shoulder	Arm Picnic Roast
		Arm Steak
	Ham	Rump Portion SM^
		Center Slice SM^
<b>Lamb</b>		
	Rack (Rib)	Rib Roast
		Rib Chop
	Leg	Sirloin Chop
		French Style Roast
		American Style Roast
	Loin	Loin Chop
	Shoulder	Blade Chop
		Square Cut
	Variety Meat	Kidney
	Shank	Shank

## **Presentations Contest - Impromptu**

Contact: Emily Haver ([ehaver@uwo.edu](mailto:ehaver@uwo.edu))

### **Overview & Eligibility**

The Impromptu Contest emphasizes the need for participants to think clearly and effectively on a topic with a short amount of preparation time. It is open to participants of all age categories. Contestants can enter both the impromptu contest as well as the prepared presentation contest. Contestants must register in advance to participate.

### **Contest**

The contest will run as follows:

1. In an effort to accommodate varying schedules, contestants will present in the order they show up for the contest within their selected one-hour block.
2. The topic drawing and preparation rooms will be separate from the speaking room(s).
3. When it is a contestant's turn, they will randomly draw three topics from a pool of questions. The contestant will select the one they would like to give the presentation about and return the other two to the pool. No two contestants within the same age group will speak on the same topic.
  - a. Questions will be relative to today's youth and may include current events, 4-H, and/or social issues. Examples of the type of questions include:
    - i. If I were an author, I would write about...
    - ii. One issue facing teenagers today is...
    - iii. If I could describe my personality as a tree, I would be a...
    - iv. What being involved in 4-H has taught me...
4. Upon selection of the chosen topic, the contestant will be allowed three (3) minutes to organize their thoughts before beginning the presentation.
5. Contestants will be allowed to organize their thoughts on a blank note card supplied at the event. Seniors are limited to one note card. Excessive use of notes may be counted against the contestant. This will be at the discretion of the judges.
6. Each speech will be timed. Two points will be deducted for each 30 seconds over or under the time limit. The following time limits have been set for each age group.
  - a. Seniors: 3-5 minutes
  - b. Intermediates: 2 ½ - 4 minutes

- c. Juniors: Up to 3 minutes
- 7. Contestants may not use any costumes, posters, visual aids, or props for their presentations.
- 8. Contestants are not allowed to present any items to the judges.
- 9. A public address system will not be used.
- 10. Ties will be broken by the judges.
- 11. This contest will be held in the morning and afternoon to accommodate additional participants who may be competing in other events at Showcase Showdown. Contestants will be asked to choose a one-hour block in which they will complete their presentation.

### **Awards**

Awards will be given to the top ten presentations for each age division.

The top two Seniors will be awarded a \$500 scholarship to attend a 4-H leadership conference of their choosing or the opportunity to compete at Western National Roundup.

## **Presentations Contest – Prepared**

Contact: Emily Haver ([ehaver@uwyo.edu](mailto:ehaver@uwyo.edu))

### **Overview**

The Presentations Contest emphasizes development of verbal communication skills. Presentation delivery may include, but is not limited to, demonstrations, interactive exhibits, skits, drama, public speaking, visual aids and/or multimedia displays.

### **Eligibility**

Contestants can be enrolled in any 4-H project and give a presentation on any topic. Returning contestants are welcome and simply need to present a different topic each year. Each county can enter any number of contestants for all age divisions. It is highly recommended that contestants compete in a county contest or practice in a public setting before the state contest.

Teams are considered one entry and share any awards.

### **Contest**

Presentations are judged on knowledge of subject matter, presentation manner, and presentation impact and are divided into the following three categories: Demonstrations, Illustrated Talks, Speeches

*Time Limits apply to all three and are based on age division:*

Juniors:3-10 minutes

Intermediates: 5-10 minutes

Seniors:7-15 minutes

Penalties apply for going over or under time limits and are at the discretion of the judges (i.e. a Senior speech that is two minutes too short will probably be deducted more points than a Senior speech that is two minutes too long, given the subject matter.) Set-up time and questions asked after the presentation concludes are not included in this time limit.

(See judges score sheets for more specific guidelines on how each category is judged.)

**Demonstration:** tables, 2 chairs, and outlets are the only things that will be provided. Proper food handling techniques, if any, are the responsibility of the individual (refrigeration needs, etc.)

Illustrated Talk: Tables, a laptop with the PowerPoint program, projector, and screen will be provided. Contestants are responsible for bringing any electronic presentation materials (i.e. PowerPoint) on a USB drive to be used with the provided supplies at the event. A different laptop may be used in the event there are problems using those provided.

Speech: no additional material/aides may be used in a speech besides note/cue cards. (NOTE: Points may be deducted for excessive use of notes/cue cards by Senior participants.)

This contest will be held in the morning and afternoon, to accommodate additional participants who may be competing in other events at Showcase Showdown. Contestants will be asked to choose a specific time slot in which they will complete their presentation. Time slot sign-ups will be emailed out to contestants prior to the contest day.

### **Awards**

The top ten individuals in each age category will be recognized in the Prepared Category overall. Awards will not be broken down by prepared presentation category (demo, talk, speech).

The top two overall Senior Individuals will be awarded a \$500 scholarship to compete at Western National Roundup or a state sponsored leadership experience. (NOTE: the Western National Roundup presentation contest is a *speech* contest, no presentation aides allowed.)

## **Produce Judging**

Contact: Kristi Nagy (knagy@uwyo.edu)

### **CLASSES**

Up to eight (8) classes of produce will be evaluated. Youth may handle the vegetables but if a product is damaged, it needs to be addressed with the contest officials.

### **IDENTIFICATION LINE**

The latest revision of the “4-H Produce Identification List” will be the authority to determine which products are used for identification. Seniors will identify 30 products; Juniors and Intermediates will identify 20.

Scoring will be based on properly identifying vegetables by either the general classifications or the specific variety correct for that item. Deductions will not be made for spelling errors.

### **REASONS & QUESTIONS**

Contestants will give reasons and/or answer questions on specific classes based on their age category.

Juniors: four (4) questions classes with use of notes, or three (3) questions classes and one (1) set of oral reasons

Intermediates: two (2) questions classes with use of notes and two (2) set of oral reasons

Seniors: four (4) sets of oral reasons

### **TRAINING AIDS**

The Wyoming 4-H Vegetable Judging Handbook is available at [www.Wyoming4H.org](http://www.Wyoming4H.org) through the Produce Judging link on the Competitive Events Tab.

### **AWARDS**

The top ten individuals in each of the three age categories will be recognized. The top three Junior Teams and the top three (3) Senior Teams will be recognized.

The top two (2) Individual in the Senior Division will be offered a \$500 scholarship to participate in a state sponsored leadership experience.

Each youth and coach are responsible for reading and understanding the Contestant Rules & Eligibility for Judging Contests. This information can be found at [www.Wyoming4H.org](http://www.Wyoming4H.org) by clicking on the Competitive Events tab.

#### 4-H PRODUCE IDENTIFICATION LIST

##### Junior/Intermediate

Apple	Onion (dry)
Asparagus	Orange
Avocado	Parsley
Banana	Parsnip
Beet (table)	Pea (green, in pod)
Blueberry	Peach
Broccoli	Pear
Brussels Sprout	Pepper
Cabbage	Potato, Potatoes are plural.
Carrot	Radish, radishes are plural.
Cauliflower	Raspberry
Celery	Rosemary
Chard (Swiss)	Rhubarb
Cherry	Rutabaga (table)
Chives	Shallot
Cucumber (slicing or pickling)	Snap bean (green or yellow)
Dill	Spinach
Edible podded pea	Strawberry, Strawberries are plural.
Eggplant	Summer squash
Garlic	Sweet corn
Grape	Sweet potato
Grapefruit	Tomato, Tomatoes are plural (cherry, pear or plum; ripe)
Green onion	Turnip
Head lettuce	Watermelon
Kale	
Leaf lettuce	

Leek  
Lemon  
Muskmelon or cantaloupe

#### 4-H Produce Identification List

##### Senior

Alfalfa Sprouts	Fennel	Pear
Apple	Garlic	Pepper
Apricot	Ginger root	Pineapple
Artichoke	Grape	Plantain
Asparagus	Grapefruit	Plum
Avocado	Green onion	Pomegranate
Banana	Guava	Potato
Basil	Head lettuce	Radish
Beet	Jicama	Raspberry
Broccoli	Kale	Radicchio
Brussels Sprouts	Kiwi	Rosemary
Blackberries	Kohlrabi	Rhubarb
Blueberries	Leaf lettuce	Rutabaga
Cabbage	Leek	Sage
Carrot	Lemon	Shallot
Cauliflower	Lime	Snap bean (green or yellow)
Celeriac	Mango	Spinach

Celery	Mint	Strawberry
Chard (Swiss)	Muskmelon or Cantaloupe	Summer squash
Chinese Cabbage	Mushroom	Sweet corn
Cherries	Mustard	Sweet potato
Chives	Nectarine	Thyme
Cilantro	Okra	Tomato
Collard	Onion	Tomatillo
Cucumber (slicing or pickling)	Orange	Turnip
Cranberry	Oregano	Watermelon
Dill	Parsley	Winter radish or Daikon
Edible podded pea	Parsnip	Winter squash
Eggplant	Pea (green, in pod)	
Endive	Peach	

### Robotics Contest

Contact:

Erin Persche ([epersche@uwyo.edu](mailto:epersche@uwyo.edu)) or Stacy Buchholz ([stacy@uwyo.edu](mailto:stacy@uwyo.edu))

**Ag Robotics Mission Challenge (Junior, Senior)** This is a challenge-based contest. Some known challenges will be released prior to the contest, and the remaining on contest day. Teams build and program their robot for known challenges prior to the contest. On contest day, the remaining unknown challenges will be revealed, and teams will be given time to build and program the robot to account for the newly revealed challenges.

**Mini-Sumo Robot: (Junior, Senior)** Teams will design and build a self-propelled or sensing robot designed to force another robot outside a circle four (4) feet in diameter. This contest will be divided by age divisions (junior and senior) with a double elimination bracket configuration.

*Please note: Teams must bring their own robot kit (preferably the Lego Mindstorms NXT, EV3 or SPIKE) and any additional Lego pieces necessary for their contests. **It is also required that teams bring their own laptops/software. Please see game rules for specific equipment requirements***

**Requirements:** The contests are open to any 4-H member currently enrolled in the Robotics project. Teams may enter one or all of the contests. Teams may consist of one to four (1-4) members.

**Age Groups:** Junior (8-13)  
Senior (14 & up)

**Judging**

All of the contests are ranked based on the criteria in the rules and score sheets. Members are judged on their application of technological principles and concepts and their ability to solve difficult problems. During the judging for each contest, only the contest facilitator and judges/officials are permitted in the designated contest area. Leaders, other members, parents, and additional competition attendees are prohibited from entering the designated area of the contest while judging is occurring. For all contests and special awards, the decisions of the judge(s) are final and binding.

**Awards:**

Awards will be given to each of the two (2) age groups for each of the contests (Mini-Sumo and Agrobotics Mission Challenge).

2023 Contest Schedule		
12:30 pm	Check-In	
1:00 pm	Orientation Meeting	Rules, Mystery Challenges, Questions
1:30-1:40 pm	Sr. Team Coaches Meetings	Strategize with teams prior to build time
1:40-2:40 pm	Build Time	Tests on Mission Mat allowed, teamwork evaluation
2:40 pm	Mission Competition and Interview Judging	Two runs/Team, 5 minutes each, Interviews after matches have been completed, 5 mins/team Jr, 10 mins/team Sr
4:30 pm	SUMO Contest	

**Mini-SUMO Robot Contest**

The Mini-SUMO Robot Contest requires the member to build an autonomous self-propelled or sensing robot, designed to force another SUMO Robot outside a four (4) foot diameter circle. The competition circle will be a flat black, four-foot (4') in diameter, surrounded by a two-inch (2") wide (painted or taped) flat, white ring. When one Sumo causes the wheels of the other to fall off the competition surface, that sumo is declared the winner.

**Rules**

1. The SUMO can use sensing devices to govern the motion of the SUMO and can use sensors to detect the other SUMO and/or the edge of the white circle.

2. Sumos cannot exceed 3 Kilograms in weight.
3. Sumos ***cannot*** exceed a **maximum size** of 20cm x 20cm x 20cm at the start of the contest. They may have attachments however that upon the start of the contest extend beyond the 20x20x20 footprint.
4. The SUMO drive wheels **must** be non-destructive to the playing surface.
5. The SUMO may not have a remote off/on switch.
6. The contest will be run in a double elimination tournament format for each age group.
7. At the beginning of each competition, with the power switch in the “off” position, the SUMO handler(s) will position their SUMO with a wheel or track on the starting line as instructed by the judges. At the command of the judge/facilitator, the handler(s) will turn the power switch to the "on" position.
8. When one SUMO causes **the wheels** of the other SUMO to fall off the competition board surface, that SUMO bot is declared winner of that engagement.
9. If one SUMO is disabled by another, it is automatically eliminated from that round
10. If the SUMO match continues for three (3) minutes without a winner, there will be an automatic re-match. If after three (3) consecutive re-matches, no winner is determined, both SUMOs will be given five (5) minutes to re-program/build for a final match up. If no winner is determined from that re-match, both SUMOs will go into the loser’s bracket or be eliminated from the contest.
11. If both SUMOs leave the circle at the same time, a "non-contest" is declared and the two SUMOs are repositioned, and the contest begins anew.
12. Decisions of the judges are final and binding.

## Agrobotics Mission Challenge

**Contest Description:** This is a challenge-based contest. Some known challenges will be released prior to the contest, and the remaining on contest day. Teams build and program their robot for known challenges prior to the contest. On contest day, the remaining unknown challenges will be revealed, and teams will be given time to build and program the robot to account for the newly revealed challenges.

**Known challenges are included in the game description with mat schematics and supply lists. Game challenges will be released no later than April 1.**

### 1. CONTEST FORMAT/RULES OF PLAY:

- a. Teams must pre-build and program a robot prior to the competition.
- b. Teams will report to the designated location for check in and submit their robot and additional pieces/equipment for inspection.
- c. Each team will be directed to a team pit (one 6' or 8' table and chairs). Each pit will have access to electricity to power laptops and robot batteries.
- d. An orientation will be provided for all participants where show management will review the challenge, rules and scoring.
- e. The design of the game and designated number of challenges will be released in advance of the contest. There will be 3 to 4 additional unknown challenges revealed contest day, during orientation.
- f. Each team will have 1 hour for additional designing, building, programing, and testing of their robot.
- g. Teams will practice and compete on the same game table.

- h. If time permits, teams are allowed to make alterations to their robot design and/or program between matches. No more than 10 minutes will be allowed for adjustments between matches.
  - i. Teams must report immediately to the playing field when called.
  - j. The robot must perform challenges autonomously.
  - k. Only registered contestants and contest officials will be allowed in the pit Robot Challenge areas.
  - l. Teams that may experience any equipment malfunction(s) may not replace the equipment with supplies outside the contest area (from leaders, volunteers, county extension agents or contest officials). Instead, team members must work together and be creative in completing preparation without the malfunctioning equipment or visit with other teams to borrow the needed part.
  - m. Depending on the challenges, contest officials may provide non-Lego items that can be incorporated into the design of the robot.
  - n. Coaches will be permitted to meet with Junior Teams during building time to strategize and troubleshoot. Coaches are not permitted to program or touch robots at any time. Coaches are not permitted to dictate to teams how to solve the missions. Senior coaches will be allowed 10 minutes to meet with teams prior to build time. Coaches for Senior Teams are not permitted to assist after build time has started.
  - o. No cell phones or other types of communication devices are allowed in the pit or contest areas. Exceptions include the approved items listed in the Participant Rules. During the Robot Challenge matches, contestants are not allowed to communicate with anyone outside of the contest (coaches, parents, siblings, etc).
  - p. Each match has a five (5) minute time limit.
  - q. Teams will have two matches in which to earn points. The sum score of the two matches plus the interview score will determine team placing.
  - r. Tie-breaker will be based on the total of the teamwork score.
  - s. Teams must clean up their pit areas.
- 2. MINIMUM CONSTRUCTION SKILLS AND PROFICIENCY:** Competitors must be capable of designing and building a functioning Lego Mindstorm robot that includes the use of:
- a. Motors
  - b. Light/color sensor
  - c. Touch sensor
  - d. Ultrasonic sensor
  - e. Levers, arms, claws, etc.
  - f. Incorporating non-Lego parts into robot design and/or function
- 3. MINIMUM PROGRAMMING SKILLS AND PROFICIENCY:** Competitors must be capable of programming a Lego Mindstorm robot in order for the robot to:
- a. Move
  - b. Turn
  - c. Lift
  - d. Maneuver attachments effectively
  - e. Use sensors appropriately and effectively
- 4. EQUIPMENT:** Each team must supply their own equipment for the challenge. Each team may only bring the supplies listed in the table below. Any extra equipment or item that does not meet specifications will be returned to the team coach. No infrared beacons (remote) or sensors

allowed.

Lego® Mindstorm® NXT, EV3, Spike Prime, or Inventor building pieces (excludes brick, motors, and sensors)	Unlimited Quantity
Backup rechargeable batteries or sets of AA batteries	Unlimited Quantity
Lego® Mindstorm® NXT, EV3, Spike Prime, or Inventor brick/hub	1
Lego® Mindstorm® NXT, EV3, Spike Prime, or Inventor motors	3
Lego® Mindstorm® NXT, EV3, Spike Prime, or Inventor ultrasonic sensor	1
Lego® Mindstorm® NXT, EV3, Spike Prime, or Inventor touch sensor	1
Lego® Mindstorm® NXT, EV3, Spike Prime, or Inventor light or color sensor	1
Lego® Mindstorm® EV3 gyro sensor	1
Laptop computer or tablet with programming software (Lego® or non-Lego® is acceptable)	1 or 2
Power strip (3-prong, grounded)*	1
25 ft. (max) extension cord (3 prong, grounded)*	1
USB cable connection	1
Build Plans (paper or digital)	Unlimited Quantity
Plastic container or cardboard box for transporting robot to and from game area	1
Ruler or tape measure	1
Pencils and notepad with blank paper for design and note-taking purposes	Unlimited Quantity

\*\* NO two-prong extension or power strip plugs allowed.

- 5. BLUETOOTH AND INTERNET CONNECTIVITY:** Bluetooth connections can be made and utilized during Build Time. It is not allowed during the competition phase while the robot is on the playing field. No internet connectivity will be provided. Teams are advised to make sure their computers' operating system, software and robot firmware are up to date prior to the contest
- 6. SCORING:** Point values for each separate challenge may vary, depending on the level of challenge difficulty. Penalties will also depend upon challenge design, but examples may include: knocking over pieces, restricted human interaction with robot or game pieces, excessive retrievals, etc. Points will be awarded or deducted for each round of match play. Additionally, a teamwork score will be assessed by a panel of judges and added to the match scores to form the preliminary team score. The preliminary team score determines qualifiers for finals. After each match, the team captain will initial the score sheet, indicating agreement to the points awarded. Once signed, the match score is final and cannot be challenged. The contest tabulator will review the score sheet and will correct any mathematical inaccuracies.
- 7. RESULTS:** The contest results, as announced, will be final.

## **AgRobotics Game Design, Objectives, and Rules**

In addition to this document, please refer to the general contest rules and contestant eligibility and game play. The Agrobotics Mission Challenge will use the set of known challenges, outlined below, as well as additional unknown challenges that will be released on the day of the contest. Teams must pre-build and pre-program their robot prior to the competition for the known challenges. On the day of the contest, time will be given to account for additional building and programming for the unknown challenges. Teams will be allowed access to the game tables during this time.

### **Game Theme**

Lunar Base Harvest

### **Known Game Objectives**

- Docking
- Deliver farming modules
- Deliver growing medium
- Deliver seedling containers
- Test soil and deliver nutrients

### **Game Mat Layout**



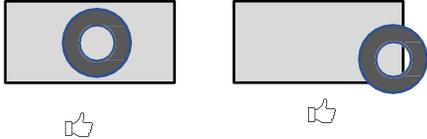
The image shown above is available for teams to download (as a [PDF](#)) and printed at a source of your choosing. The game mat will fit inside a standard robotics game table frame (inside table dimensions = 45”x93”).

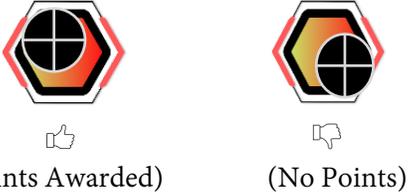
The area where the robot can be launched from is called the PLAYER ZONE. The area located outside that is collectively called the GAME ZONE.

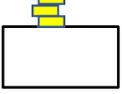
1. PLAYER ZONE
  - a. MISSION CONTROL
  - b. DOCKING STATION (if Objective 1 is completed)
2. GAME ZONE

### Scoring

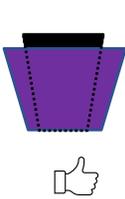
Obj.#	Objective	Description	Point Value
1.	<p><b>Docking Station</b> The Docking Ring is a ring magnet. It will be located in the resource tray at the beginning of the match.</p>  <p>The Docking Station Plate is a metal L bracket that will be mounted with wood screws</p>	<p>The robot must leave MISSION CONTROL, transport, and attach the Docking Ring to the DOCKING STATION Plate.</p> <p>Points are awarded when the Docking Ring is magnetically attached (not supported by the robot) to the DOCKING STATION Plate.</p> <p>This challenge is a prerequisite to all other challenges. No other challenges can be attempted until this one has been successfully completed.</p>	<p>50 points for successfully completing the challenge.</p> <hr/> <p>50 points maximum</p>

	<p>on the 2"x4" table frame, centered with the DOCKING STATION. One side will be on top and the other will be on the inside of the game frame facing MISSION CONTROL.</p> 	<p>Once this challenge has been completed, the DOCKING STATION can be used as second PLAYER ZONE.</p> <p>(Points Awarded)      (Points Awarded)</p> 	
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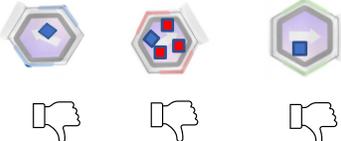
<p>2.</p>	<p><b>Delivering Farming Module</b></p> <p>The Farming Module is represented by a black atrium grate. It will be located in the resource tray at the beginning of the match.</p>  <p>It will be delivered to the Farming Module Zone pictured below.</p> 	<p><b>Prerequisite:</b> Objective 1 must have been successfully completed.</p> <p>The robot must transport the Farming Module to the Farming Module Zone. The object must fit completely within the red and black-lined border of the zone.</p> <p>Points will be awarded at the end of the match.</p> 	<p>50 points for successfully completing the challenge.</p> <hr/> <p>50 points maximum</p>
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<p>3.</p>	<p><b>DELIVER SEEDLING CONTAINERS TO MODULES</b></p> <p>Modules will be represented by four (4) plastic hexagon shaped jars secured to the game mat using Dual Lock Velcro strips. Each jar will be placed on its side.</p>  <p>The jars will be placed on green, red, yellow, and blue bordered hexagons printed on the mat. The mouth will face the same direction indicated by each arrow. Plastic jars will not have a lid on it.</p>  <p>Seedling Containers are represented by yellow, green, blue and red 2-inch neoprene plant collars. Collars will be located in the Resource Tray at the beginning of the match. There will be 3 red, 3 yellow, 3 green, and 3 blue collars.</p> 	<p>  </p> <p><b>Prerequisite:</b> Objective 1 must have been successfully completed.</p> <p>The robot must deliver 3 of the matching-colored SEEDLING CONTAINERS on top of 4 different MODULES.</p> <p>No more than 3 SEEDLING CONTAINERS can be placed on top of each MODULE. No points will be awarded for any extra SEEDLING CONTAINERS placed on top of the MODULES.</p> <p>Bonus points will be awarded if the 3 Seedling Containers are vertically stacked on top of the Module.</p> <p>&lt;TOP VIEW&gt;  VIEW&gt;</p>   (Points) <p>&lt;SIDE VIEW&gt;</p>   (Points + Bonus) <hr/> <p>(No points, blue collars belong in the blue jar)  Points will be awarded at the end of the match.</p>	<p>25 points for each container successfully placed. (300 points possible)</p> <p>Bonus of 50 points for each stack of 3. (200 points possible)</p> <hr/> <p>500 points maximum</p>
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<p>4.</p>	<p><b>DELIVER GROWING MEDIUM TO GROWING CONTAINERS</b></p>	<p><b>Prerequisite:</b> Objective 1 must have been successfully completed.</p>	<p>100 points for each Growing Medium successfully</p>
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<p>Growing Containers will be represented by silicone baking cups.</p>  <p>For Juniors, those will be located in the four (4) circular markers pictured below. Silicon cups will not be secured to the game mat.</p>  <p>For Seniors, on the day of the contest Growing Containers will be randomly placed on the game mat within one of the many printed hexagons.</p> <p>This random placement for seniors will not change the day of the contest but will be different at the next competition. For example, State Fair will be different than Fort Worth. (Clarification added 10/11/22)</p> <p>Growing Medium will be represented by reusable K-cups (with lids closed).</p> 	<p>The robot must deliver Growing Medium into the Growing Containers. There is a maximum limit of 1 Growing Medium per Growing Container.</p> <p>To earn points, the Growing Container must remain within its original hexagon location throughout the match. If a team is not going for points for this challenge, the robot may move/retrieve this game piece. (Rule clarification added 10/11/22)</p> <p>The Growing Medium must rest completely inside the Growing Container in an upright, fully vertical position.</p>  <p>(Points Awarded)</p>  <p>(No Points)</p> <p>Points will be awarded at the end of the match.</p>	<p>delivered (400 points possible). 100-point bonus if all 4 containers are successfully delivered.</p> <hr/> <p>500 points maximum</p>
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5.	<b>TEST SOIL AND DELIVER NUTRIENTS</b>	<b>Prerequisite:</b> Objective 1 must have been successfully completed.	150 points for the correct amount of nutrients
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<p>This challenge will require the use of three 3-sided dice. During the match, one team member will roll 1 green, 1 red, and 1 blue die (only one roll per match) into the RESOURCE TRAY provided.</p>  <p>The number shown on the top of each die will determine the soil test results and indicate how many units of each nutrient will need to be delivered. Plastic jars (same as objective #3) will be placed on green, red, and blue bordered hexagons printed on the mat. The jar will not have a lid on it.</p>  <p>Nutrients units will be represented by 1-inch, colored foam blocks. Green = Nitrogen (N) Red = Phosphorous (P) Blue = Potassium (K)</p>  <p>Dice and a total of 9 blocks (3 blocks for each color) will be in the Resource Tray at the beginning of the match.</p> <p>As an example, all of the green blocks will be delivered to the module with the green border printed on the game mat.</p>	<p>The robot must deliver the precise amount of Nutrients (N, P, and K) inside each corresponding, color-coded Module. The amount is determined by the roll of the dice. Example Roll: 1 green (N), 3 red (P), 2 blue (K)</p> <p style="text-align: center;">&lt;TOP VIEW&gt;</p>  <hr/>   <p>(needs 2 blue) (needs 3 red only) (needs only 1 green)</p>	<p>successfully delivered to each module (450 points possible) 100-point bonus for placing all nutrients successfully delivered to all 3 modules.</p> <hr/> <p>550 points maximum</p>
	<b>ALL KNOWN CHALLENGES</b>	1,650 points possible

## Game Piece Supply List

(No product or company endorsement implied nor intended)

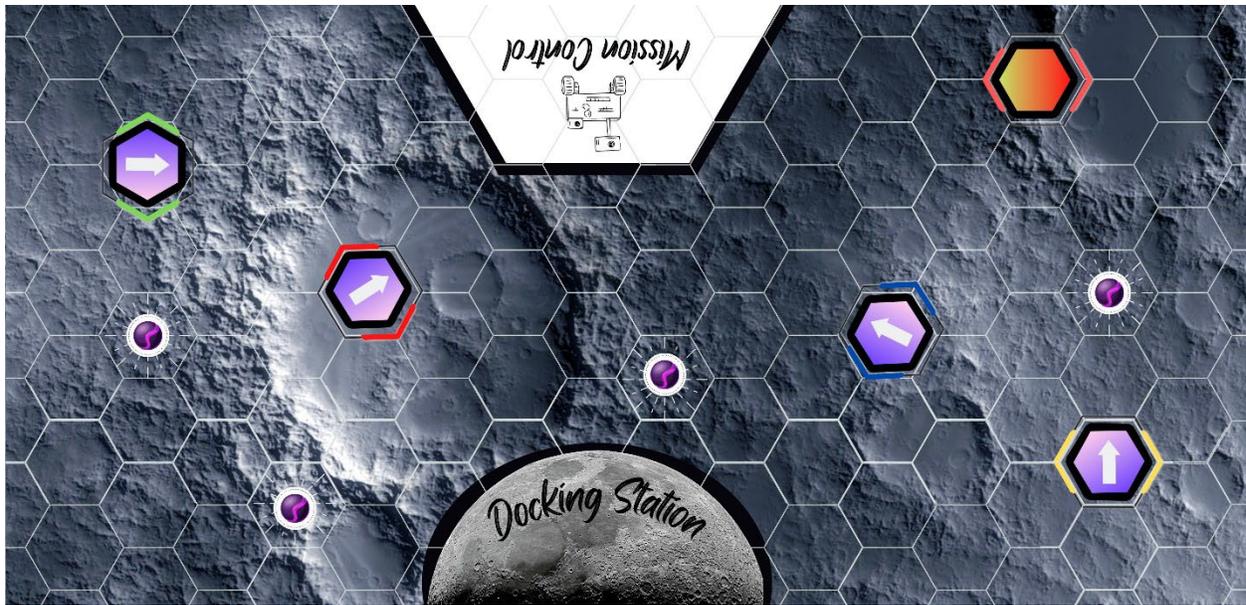
Product Description	Number of Pieces Used in Game	Purchase Link
Printed vinyl game mat	1	<a href="#">Link</a>
Ring Magnet	1	<a href="#">Link</a>
L Angle Bracket	1	<a href="#">Link</a>
Atrium Grate	1	<a href="#">Link</a>
Plastic Hexagon Jars	4	<a href="#">Link</a>
3-sided dice (red, green, and blue)	3 total, 1 of each color	<a href="#">Link</a>
1” Foam Blocks (red, green, and blue)	9 blocks total (3 of each color)	<a href="#">Link</a>
Dual Lock Velcro	As needed	<a href="#">Link</a>
Reusable K Cups	4	<a href="#">Link</a>
Silicone Baking Cups	4	<a href="#">Link</a>
Neoprene Collars	12 total (3 sets of 4 different colors)	<a href="#">Link</a>

## Rules of Play

1. At the beginning of the match, your team’s robot must start in MISSION CONTROL. At least one part of the robot must be touching inside the border of MISSION CONTROL.
2. The GAME ZONE is the area outside of MISSION CONTROL.
3. The RESOURCE TRAY is a plastic tray that will be placed on the outside of the game table and will hold game pieces for known and/or unknown challenges. Game pieces in the RESOURCE TRAY may not be accessed until the match begins.
4. Robots must be launched from MISSION CONTROL or the DOCKING STATION (once earned) throughout the match. Before being launched, at least one part of the robot must be touching inside the boundary. Once launched, the robot must completely exit MISSION CONTROL or the DOCKING STATION (once earned) before completing the objective.
5. Each match will be five (5) minutes long.
6. Time begins when the announcer says “BEGIN” and continues until the announcer says, “TIME”.
7. Robots must complete all challenges autonomously.
8. Any structures built by the team or game pieces cannot be placed onto the GAME ZONE by human players but is permitted to be placed by the robot so long as it is done autonomously and is permitted by challenge rules.

9. No containers used by game officials to store game pieces can be used by the team/robot.
10. Players may retrieve their robot at any time during the match without penalty. When retrieved, the robot must return to MISSION CONTROL or the DOCKING STATION (once earned). Judges will not assist in any retrievals.
11. Possession is defined as a piece that is not touching the playing surface and is under the control of the robot.
12. Items in possession of a robot may be retrieved once any part/piece of the robot has broken the plane of MISSION CONTROL or the DOCKING STATION (once earned) boundary.
13. If the robot is in possession of a game piece in the GAME ZONE, and the robot is retrieved by the player, the game official will return the game piece(s) to its original location/state.
14. A player is not allowed to touch any game piece except when the piece is completely inside the MISSION CONTROL or the DOCKING STATION (once earned) boundary, OR if the robot is deemed in MISSION CONTROL or the DOCKING STATION (once earned) AND in full possession of a game piece(s). Once the piece is deemed inside MISSION CONTROL or the DOCKING STATION (once earned), contestants may remove the game piece from the game table/robot and store it in the RESOURCE TRAY.
15. If a contestant intentionally touches a game piece in the GAME ZONE, the team will be given a 50-point penalty per occurrence. In such cases, the piece will be returned to its original starting position by contest officials as quickly as possible.
16. All competing team members are allowed around the game table during competition, and any member may touch the robot when necessary.
17. Teams not competing must remain at their tables or staging area.
18. Good sportsmanship is always expected. This is crucial during practice times. Practice time on the game table may be restricted as build time progresses.
19. At the conclusion of the match, it is the responsibility of the team captain to review the scoresheet with the judge and then initial at the bottom, signifying agreement of the final match score. Scores are final after this point and cannot be contested.

### WY AgRobotics Game Mat



### **TABLE SETTING**

Contact: Emily Swinyer (eswinyer@uwyo.edu)

#### **Eligibility**

Open to any Wyoming 4-H member. Age divisions are as follows:

- Juniors (8-10)
- Intermediates (11-13)

- Seniors (14-18).

This contest is for individuals only. Teams may not enter.

### **Objectives**

Participants will demonstrate their ability to properly set a table for one guest at a meal/event. Each contestant should use his/her creative juices for this contest. The information provided online is simply a starting place.

### **Resources**

Available at

<http://www.uwyo.edu/4-h/opportunities/state-contests/showcase-showdown/table-setting.html>

### **Contest Rules**

- Tables will be provided. Depending on the location the exact size of the table may vary. 4-H members will have enough space to set up a place setting for one person along with accompanying table decorations. No other equipment will be provided for the contestants use.
- Contestants are responsible for providing all appropriate and necessary table setting items and a menu for their chosen meal/event. Please make sure all items are present before the contest begins.
- No food items, please. Food may be appropriate if part of the décor of set table. (i.e., edible centerpiece)
- Contestants will have 15 minutes to arrange items for their single place setting.
- Menus should be displayed appropriately. Invitations are optional.
- Participants will be interviewed by the judge.
- Because this contest includes an interview process contestants should dress professionally. This could include clothing related to the table setting theme or interview appropriate professional dress. Points will not be deducted if clothing is professional but does not match the theme.
- At the end of the interview process contestants are responsible for dismantling their table setting.
- The scoresheet serves as an excellent guide in helping members prepare for this contest. Table setting guidelines can also be found on the Wyoming 4-H website.

### **Awards**

Awards will be given to the top ten competitors in each age division.