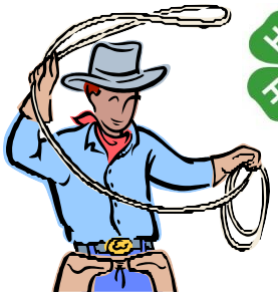


2017 Harris County 4-H Roundup Newsletter

General Information and Rules for County 4-H Contest

1. Junior (age 8 & in the 3rd grade- 5th grade) may participate ONLY in county and district contests. (**note: *Healthy lifestyles is only open to intermediate and senior members at the district and state level*)
   - Clover Kids may only compete on the county level in Food Show, Healthy Lifestyles and Share the Fun.

2. Intermediates (6th-8th grade) may participate at county and district levels and at the state level with invitational contests.

3. Senior members (9th-12th grade) may participate in county, district and state contests.

4. There will be a $5/person entry fee for all contests with the exception of Food Challenge, which will be $10/person to help cover the cost of materials for the contest. Please make checks or money orders payable to "***Harris 4-H Fund***".

5. **The County contest dates are as follows:**
   - **Round Up #1:** February 25th, 9am – Harris Co. Extension Office
     - Food Challenge, Food Show, Ag ID, Healthy Lifestyles, Consumer Decision Making
   - **Round Up #2:** February 25th, 1pm – Harris Co. Extension Office
     - Share the Fun events, Discovery Science Method Poster, Public Speaking events
   - **Fashion Review Round Up:** March 30th, 4pm – Harris Co. Extension Office
     - Duds-to-Dazzle, Fashion Story Board, Fashion Show
   - **Photography Contest: Email all pictures to Harristx4h@gmail.com**
     - *Deadline*: 4:00pm March 3, 2017
     - Fee is $5/PARTICIPANT, not per picture
     - In your email, please include your name and category you are entering
     - You may enter 1 picture per category. No duplicates.

6. You MUST pre-register for ALL county 4-H contests. To pre-register, complete the online registration form and submit payment to the Harris Co. office by the deadline.

****Participation in county round-up competition is *REQUIRED* in order to participate at the district level ****

(Exception for Invitational Competitions: Ag ID, Healthy Lifestyles, Discover Science Method.)

On-line Registration for 2017 Harris Co. Round Up

Food Challenge: https://goo.gl/forms/LIt3X27stNayHA9T2

Food Show: https://goo.gl/forms/8iPdmV38PHhFewFB2

Consumer Decision Making: https://goo.gl/forms/r2xZKkV4wXlgK44Q2

Healthy Lifestyles: https://goo.gl/forms/hF1QK8BRUtIXBRLJ3

Ag ID: https://goo.gl/forms/DNRm7M4kdAO73PZl2

Public Speaking: https://goo.gl/forms/2lR1FJVbAR8ZM2KJ3

Share the Fun: https://goo.gl/forms/mbh9p63Xnxt72yZE3

Educational Presentation/Illustrated Talk: https://goo.gl/forms/YGxnpRKrpRIGQvQB3

Discover Scientific Method: https://goo.gl/forms/GHuuSQgeMvYkNYfn1

NOTE:

If you are entering a contest as a team, you only need to fill out one entry form per team but include all team members' names on the entry form.

Please remember all entry fees are **per member,** not per team.

Harris County 4-H Round Up #1

Consumer Decision Making Contest

Saturday-February 4, 2017 at Extension Office

Entry/Registration Deadline: January 20, 2017 **Entry Fee:** $5.00 per person

The Consumer Decision Making Contest is a competitive event that enables 4-H members to practice making decisions based on information about a situation and four classes of possible merchandise. This contest is an opportunity to practice consumer skills and compare products to find the best solution for the scenario. Intermediates and Seniors also present their decisions to a panel of judges who are knowledgeable about today's marketplace and the goods and services available. Consumer Decision Making is offered at the State and National level for teams that qualify.

Description/Objective:

- Demonstrate skill in making decisions based on facts
- Apply knowledge and experience in consumer education by analyzing consumer situations
- Experience making choices among selected marketplace options
- Develop and strengthen reasoning ability in consumer skills
- Demonstrate their ability to organize thoughts and express them orally in a clear, confident manner

Consumer Decision Making is open to Individuals or teams of 3 or 4. High Point Individuals in each age category will be recognized and the top three teams in each age level. Teams may be comprised of Junior and Intermediate age levels. Teams members at Senior level MUST be all seniors. For Rules and information on the classes to be judged refer to the Texas 4-H Consumer Decision Making Web site- http://texas4-h.tamu.edu/projects/consumer-education/

Age Divisions: Junior (3to5th grade) Intermediate (6 to 8th grade) Senior (9 to 12th grade)

Schedule: Tentative

10:00 am-Teams/ Individuals Check in

10:30 -Judging Classes (five rounds– 10 minutes per round)

11:30– Oral Reasons—Intermediates and Seniors teams only

Noon - Tabulation and awards

Judging Classes may include: Note a Mystery Class may also be included

•Jeans	
•Western Boots	•Fast Food Meals
•Printers	•Cookware
•Televisions	
Outdoor Equipment	•Computers
•Digital Cameras	

2017 4-H Healthy Lifestyles Invitational

The 4-H Healthy Lifestyles Invitational will provide youth the opportunity to participate in a competitive event and utilize the knowledge and skills gained through participation in 4-H healthy lifestyles programs. **Harris County Round-Up #1 will be held on Saturday, February 4, 2017.** Youth participate in District 4-H Roundup May 11-13th, 2017 no county qualification needed.

Participation:

- The 4-H Healthy Lifestyles Invitational will be open to youth in the intermediate and senior age divisions. Juniors are welcome to participant at the county level however juniors are not allowed to compete in this contest on the district and state level.
- 4-H members do **not** have to qualify in order to participate in this invitational contest.
- 4-H members may enter as an individual or a member of a county team. Teams shall be made up of 3-4 youth within the same age division.
- 4-H members entered as individuals will be randomly grouped with other individuals to form a team for the team presentation portion of the contest. Best efforts will be made by the contest planning team to group individuals into four member teams. However, this is not a guarantee. Note: It is a possibility that there will not be enough participants entered as individuals in order to make up teams. If that is the case, individuals will still be grouped with others to make a team of two or have to compete as an individual. If teams of 3-4 cannot be made, the participants will only be eligible for individual awards. Juniors participants will be placed in teams with intermediate participants.

Contest Format:

The 4-H Healthy Lifestyles Invitational will consist of two parts:

Judging

- Each participant works individually to place/rank up to eight classes, each of which consists of a scenario and four options related to a healthy lifestyles topic. For each class, the individual participant will rank the four options based on the given situation. Some classes may also include a multiple choice and/or true/false quiz. Seven minutes are allowed for each class, with one minute in between classes to allow for rotation to the next class.
- Participants will use the **Universal Form A Scantron** to indicate class placings.
- Each of the eight classes is worth 50 points.
- The eight classes will provide a situation on various healthy lifestyles topics, with class topics being:
    - Fad diets
    - Food safety
    - Healthy fast food meals
    - Healthy homes
    - Internet safety
    - Nutrient needs/functions

- Physical activity
- Substance abuse/tobacco cessation

Group Presentation

- Upon conclusion of the judging portion of the contest, teams will be randomly assigned an order for team presentations.
- Each team will be presented with a scenario and have 10 minutes to evaluate it, decide on a solution and prepare a presentation.
- Each team will then have 5 minutes to present their solution to the problem/scenario, to a panel of judges, with 2 additional minutes allowed for questions from the judges.
- The scenario topic for the group presentation will tie back to one of the eight healthy lifestyles topics listed above.
- Visual aids may not be used during the team presentations.
- 4-H members entered in the contest as an individual will be randomly grouped with other 4- H members within the same age division to form a team (see note above under participation section).
- The team presentation is worth a maximum of 50 points.

Contest Details

Scoring:

The following scoring system will be used to tabulate scores and determine the winning team for each age division of the Healthy Lifestyles Invitational. A maximum of 1250 points can be attained by each team. *Note: Teams of four members will have the lowest team member's scores dropped. However, for teams of three, all team members' scores will be used in tabulation.

Scoring Summary:

Contest Portion	Maximum Point Value	Number	Total Maximum Point Value Per Member	Total Maximum Point Value Per Team
Judging of classes	50	8 classes	400	1200
Team Presentation	50	1 presentation	50	150

**Each team member will receive the same score given for the team presentation.

Awards

Individual and team awards will be presented. Awards may include, but are not limited to:

<u>Team awards for each age division</u>

• High point team overall (judging & team presentation)

• High point team for team presentation
• High point team for judging portion of contest

Individual awards for each age division
• High point individual overall (judging & team presentation)
• High point individual for judging portion of contest

The following educational resources are recommended for participants to study in preparation for the invitational contest. Participants may seek other research-based resources to study in preparation for the contest.

Fad Diets
Winning with Nutrition: Fads & Facts Lesson
Food Safety
Fight Bac - Fight Foodborne Bacteria Brochure
Brochure - Food Safety on the Move Flyer
Food Safety Four Myth Flyer
Healthy Fast Food Meals
Consumer Decision Making Healthy Fast Food Meals Study Guide
Healthy Homes
Seven Steps to a Healthy Home
Internet Safety
Teen Safety in Cyberspace
Nutrient Needs/Functions
Nutrient Needs at a Glance
Physical Activity
Choose My Plate Physical Activity Resource
Substance Abuse/Tobacco Cessation
Health Hints—Tobacco Cessation Resources

Information and resources for the 2017 4-H Healthy Lifestyles Invitational Contest are available online at: http://texas4-h.tamu.edu/healthy_lifestyles

TEXAS A&M AGRILIFE EXTENSION

AGRICULTURAL PRODUCTS IDENTIFICATION STUDY GUIDE

OVERVIEW

20 Texas agricultural products are selected and exhibited at separate stations. Contestants select the correct identification of each product from four possible answers. Each station also has one multiple choice question pertaining to the product on display. Questions are general to the industry that produced the product, (i.e. Texas' national ranking, economic impact to Texas, general nutritional content, region of production) and specific to the individual product that is on display (i.e. cooking method, use, growing season, specific nutrition of the cut or variety).

Contestants are given 40 seconds at each station to answer both questions. Products can range from garlic to a rib-eye steak.

In this manual, you will find example products from the contest, the contest set up, rules, and photos so you can begin to train your very own Agricultural Identification Team.

NOTE:

The Pick Texas resources formerly hosted by Texas Department of Agriculture has been replaced with the GOTexan website.

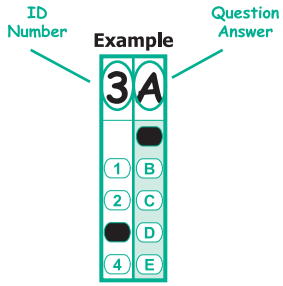
Some resources on this page can be utilized as well as the Texas Produce Association website.

Agricultural Product Identification Form #API2

Last Name	First Name

Team Name

Team #	Division
0 0 0 0 1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4 5 5 5 5 6 6 6 6 7 7 7 7 8 8 8 8 9 9 9 9	4-H or FFA Public School



1	2	3	4	5	6	7	8	9	10
A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E

11	12	13	14	15	16	17	18	19	20
A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E	A 1 B 2 C 3 D 4 E

Potential Contest Products

Almond
Aloe Vera
Apple
Apricot
Artichoke
Asparagus
Avocado
Banana
Bean
Beet
Black-Eyed Peas
Blackberry
Blueberry
Bok Choy
Broccoli
Brussels Sprout Cabbage
Cantaloupe
Carrot & Maroon Carrot
Cauliflower
Celery
Cherry
Cilantro
Coconut
Collard Greens
Cucumber
Dill
Eggplant
Fig
Ginger
Grapefruit
Green Bean
Guava
Honeydew
Jalapeno
Jicama
Jujube
Kohlrabi
Leeks
Lemon
Lettuce
Lime Loquat
Mandarin Mango
Mayhaw
Muscadine
Napa
Okra
Olive
Onion (Dry) Onion (Green) Orange
Papaya
Peach
Pear
Peas
Pecan
Pepper (Bell)
Pepper (Chile)
Persimmon
Pineapple
Plum
Pomegranate
Potato Pumpkin
Radish Rosemary
Serrano
Snap Peas
Spinach
Squash (Summer)
Squash (Winter)
Strawberry Sweet Corn Sweet Potato Tangerine
Tomatillo Tomato
Turnip
Walnut
Watermelon

Note: All Pork and Beef products will be/can be utilized in this contest. Resources for these products can be found here:

- http://www.certifiedangusbeef.com/cuts/Default.aspx
- http://www.texaspork.org/consumer.html

HOW DO I STUDY?

Step 1: Review the resources on: http://texas4-h.tamu.edu/
Step 2: Pick a product
Step 3: Review sample questions and quiz each other/students/teachers (See examples below)

Tip: Make Flash Cards/Bullet Point lists of 20 products each practice based on the resources and learn the various aspects of each product. Below is an example of a few resources and how to study each.

Suggested Resources:
http://aggie-horticulture.tamu.edu/
http://www.texasproduceassociation.com/
http://consumer.certifiedangusbeef.com/cuts/Default.aspx
http://www.texaspork.org/consumer.html

Almond

Source: Aggie Horticulture Website > Fruit And Nut Resources > Plums and Stone Fruit Page > Product > Almond:

- Almond fruit looks similar to peaches
- The pit is eaten as a nut.
- The tree looks similar also and is grown essentially the same as peaches
- plant only on well drained soils, and maintain a weed free area around the tree
- Almonds generally do not produce well in Texas because they bloom too early in the spring and cold weather injures the developing flowers.
- Most varieties are susceptible to brown rot and bacterial leaf spot.
- No variety is highly recommended because they generally fail to set crops.
- 'All-In-One' is the most common variety being tried today.

Source: Aggie Horticulture

Possible question:

Part 1:

What is this product?
01. Prunus
02. Apple
03. Almond
04. Aloe Vera
Answer: 03. Almond

Part 2:

When growing this product, what other fruit's methods are applied?
A. Apple
B. Peach
C. Artichoke
D. None of the above
Answer: B. Peach (see bullet point 3 above)

2017 Harris Co. 4-H FOOD SHOW
RULES & GUIDELINES

2017 District 9 Competition Deadlines and Dates

Sunday, April 16, 2017

- Deadline to Register for District 9 4-H Food Show on 4-H Connect

Monday, April 17, 2017

- Deadline to submit District 9 4-H Food Show Entry Form to County Extension Office

Tuesday, April 18, 2017

- Deadline for County Extension Office to submit District 9 4-H Food Show Entry Form to district94hfoodshow@gmail.com

Friday, April 28, 2017

- District 9 4-H Food Show Judging Schedule Posted http://d94-h.tamu.edu/eventsandcontests/bigtime/food-show/

SCHEDULE

- Each participant will be assigned a Judging Time at check in

THEME – Family Favorites

This theme will allow participants the opportunity to explore many aspects of food preparation, food safety, creative recipes and more! Concentrate on foods that are family favorites, with the emphasis of the importance of family mealtime. Research consistently shows that regular family meals are linked to: higher grades for children, higher self-esteem, healthier eating habits and healthier weights.

OBJECTIVES

- Practice and know recommended food preparation skills including food safety.
- Understand connection of recipe to MyPlate food category.
- Learn the nutrients in your dish and food category and the health benefits they provide to your body.

ENTRY DIVISIONS

We are able to send unlimited number of participants per age and category division to district.

- Juniors - Grades 3rd (and at least 8 years old), 4th and 5th as of August 31, 2016
- Intermediate - Grades 6th, 7th, and 8th as of August 31, 2016
- Seniors - Grades 9th, 10th, 11th, 12th as of August 31, 2016

RECIPE SELECTION

Four entry categories allow for presentation of a variety of foods in the Food Show. The categories

also provide an opportunity for contestants to exhibit a variety of food presentation principles.

Many recipes can be entered in more than one category. Participants should consult with the website http://www.choosemyplate.gov/ when selecting a recipe category. All four food categories may use ovens during food preparation. However, oven time is limited to 75 minutes in all categories.

- **Protein** - All foods made from meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts, and seeds are considered part of the Protein Foods Group. Beans and peas are also part of the Vegetable Group.
    - EX: Dishes that contain meat or meat alternative such as eggs, dry beans, peas or peanut butter.

- **Fruit and Vegetable** - Any fruit or 100% fruit juice counts as part of the Fruit Group. Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed. Any vegetable or 100% vegetable juice counts as a member of the Vegetable Group. Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed. Vegetables are organized into 5 subgroups, based on their nutrient content.
    - EX: Dishes that accompany a main dish (salads, relish trays, cooked fruits and vegetables)

- **Grains** - Any food made from wheat, rice, oats, cornmeal, barley or another cereal grain is a grain product. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples of grain products. Grains are divided into 2 subgroups, Whole Grains and Refined Grains. Whole grains contain the entire grain kernel
  — the bran, germ, and endosperm.
    - EX: Quick, yeast, bread mixes, rice, pasta

- **Dairy** - All fluid milk products and many foods made from milk are considered part of this food group. Most Dairy Group choices should be fat-free or low-fat. Foods made from milk that retain their calcium content are part of the group. Foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not. Calcium-fortified soymilk (soy beverage) is also part of the Dairy Group.
    - EX: Dishes selected must contain a minimum of a half serving of dairy (macaroni and cheese, drinks, custards, cheese logs, etc.)

PREPARATION

- Microwave ovens will be available to reheat foods. You will not have time to cook your dish, only reheat.

- Please plan a way to keep cold foods cold.

- Participants will need to bring things such as hot pads, dishtowels, and whatever else they might need.

- Participants will also need to bring a serving utensil(s) to serve their dish to the judges.

- **Judges will not taste the dishes**.

RECIPE SUBMISSION CHECKLIST

Tips for Success

I. Does Your Recipe Have All of These Parts?

a. Name of Recipe

b. Complete list of ingredients (Size cans, packages, cans, etc. given) EX: 10 oz. box chopped frozen spinach NOT Spinach, box of spinach or frozen spinach.

c. Description for combining all ingredients

II. List of Ingredients

a. Ingredients are listed in order in which they are used

b. Ingredients listed as they are measured, i.e. the word describing is in the correct place.
EX: 1/4 cup chopped onion, not ¼ cup onion chopped.
EX: 1 green pepper, chopped, not 1 chopped green pepper

c. Measurements given in common fractions
i.e. 1/4 cup, 2 tablespoons, 1 teaspoon

d. All measurements are spelled out, not abbreviated.
EX: cup, teaspoon, tablespoon, size can, etc. (i.e. 4-ounce can)

e. Avoid brand names. Include complete description of ingredients,
i.e. low-fat, packed in syrup, reduced fat, etc.

III. Directions

I have. . . . . .

a. Used clear instructions for every step of combining and cooking the ingredients

b. Used short, clear sentences

c. Used the correct word to describe combining and cooking processes

d. Stated the size of pan

e. Given the temperature and cooking time

f. Included the number of servings or how much the recipe would make

Example of Recipe
4-H Shamrock Salad

6-ounce package lime gelatin **(not just 1 package lime gelatin)**

2 cups boiling water

1 cup lemon-lime soda

8-ounce package low-fat cream cheese, softened **(not just 1 package/ what kind? Low Fat, Fat free, etc.)**

½ teaspoon vanilla

11-ounce can mandarin oranges, drained **(always include size)**

8-ounce can pineapple tidbits, drained

2 cups red grapes, halved, seeded **(not just grapes, also color/kind? Red, Concord, Green)**

2 cups chopped celery **(not 2 cups celery chopped - you must chop the celery to measure it, so chopped must be written first)**

½ cup chopped pecans **(are you measuring the pecans before or after chopping? The way it is written here indicates chopping first)**

8-ounce carton frozen low-fat whipped topping, thawed **(indicate low-fat, fat-free, etc.)**

3-ounce package lime gelatin

1 ½ cups boiling water

Dissolve the 6-ounce package lime gelatin in 2 cups boiling water. Stir in 1 cup lemon- lime soda. Combine this with cream cheese, vanilla, and lime juice in blender, and process until smooth. Pour blended mixture into bowl. Stir in all fruit, celery and pecans. Fold in three-fourths carton whipped topping. Pour into 13x9x2-inch pan. (Note size of pan is listed) Chill until firm; then cut whole pan into 8 equal sized portions.

In order to make the 4-H Shamrock gelatin jigglers, dissolve the 3-ounce package lime gelatin in 1 ½ cups boiling water. Pour into shallow pan, 24x16x1 inches. Chill until set. Cookie cut the jiggler gelatin into 4-H Shamrock shapes. Serve salad squares on lettuce-lined plate. Top with 4-H Shamrocks. Garnish with remaining whipped topping. Chill until serving time. May add other garnishes to serving tray for color variety. Yield: 8 servings. (Note number of servings is listed)

RECIPE PRESENTATION AND JUDGING

Contestants will be interviewed in separate judging rooms if space is allowed. The order in which each county will be judged will be randomly selected and will be posted on the District 9 4-H website **http://d94-h.tamu.edu/eventsandcontests/bigtime/food-show/** by April 28, 2017.

Please do not arrive more than 20 minutes prior to your judging time due to space limitations.

1. ***Introduction/Presentation***
   Each contestant will start with a maximum **four-minute presentation** to introduce themselves and their dish. You should describe your inspiration in choosing your recipe and how it relates to the theme, **Family Favorites.**

2. ***Question and Answer***
   Judges will have the opportunity for a **four-minute interview** asking questions applicable to the attached scorecard. It includes but is not limited to basic nutrition, food safety, and preparation as well as project experiences. Being familiar with the information from the recommended resources in the Guidelines will improve your interview success.

3. ***Serving***
   At the conclusion of the question and answer period you will have **one-minute to serve** the judges a portion of your dish. This will allow judges to visually evaluate the dish you have prepared. Contestants are encouraged to practice proper food handling techniques when presenting food to the judges.

The food should be presented in a serving dish with a serving utensil. The dish should be presented to the judges as if it were about to be placed on a table for a family dinner. In some instances, it is not necessary to present to the judges the entire recipe. For example, if a recipe makes two loaves of bread, only one loaf needs to be presented for judging. Serve judges only a small portion of food using the paper products provided by the judging supervisor.

Fancy or elaborate placemats, linens, centerpieces, candles, etc., are not to be included with the dish as it is presented for judging interviews. Contestants should use only serving dishes and utensils appropriate and necessary to present and serve the dish to be judged. Agents and leaders are encouraged to use discretion regarding this manner when counseling 4-H participants, members or contestants for the district food show.

At the conclusion of 4-H Food Show, ranking, judges' comments and other correspondence will be forwarded to the 4-H County Agent. Please allow up to two weeks for processing.

Judges will interview contestants in 15 minute intervals

- **4 minutes for oral presentation**
- **4 minutes for interview by judges**
- **1 minute for serving of dish**
- **6 minute between contestants for judges to complete scorecard**

STUDY RESOURCES

- Altering Recipes for Good Health
  http://fcs.tamu.edu/files/2015/02/altering-recipes-for-good-health.pdf
- MyPlate http://www.choosemyplate.gov/
- Food Safety http://www.fightbac.org/
- Dietary Guidelines for Americans http://health.gov/DietaryGuidelines/
- Texas A&M AgriLife Extension Service: Nutrient Needs at a Glance
  http://fcs.tamu.edu/food_and_nutrition/pdf/nutrient-needs-at-a-glance-E-589.pdf

THEME RESOURCES

- Make Easy & Healthy Meals https://choosemyplate-prod.azureedge.net/sites/default/files/printablematerials/MyPlateForMyFamily-ParticipantHandouts.pdf
- The Importance of Family Mealtime
  http://food.unl.edu/documents/The%20Importance%20of%20Family%20Mealtime.02.01.10.pdf
- Family Mealtime http://store.msuextension.org/publications/HomeHealthandFamily/MT200403HR.pdf

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FORM REQUIRED FOR 2017 DISTRICT 9 4-H FOOD SHOW

1. **Send District 9 4-H Food Show Form to County Extension Office by April 17, 2017.**
2. The Food & Nutrition Project Experiences should cover one year's 4-H work for Food Show to next year's Food Show.
3. Entry and payment should be made through 4-H Connect by **April 16, 2017**.

COUNTY EXTENSION OFFICE

Email all District 9 4-H Food Show Entry Form(s) to district94hfoodshow@gmail.com by April 18, 2017.

2017 District 9 4-H Food Challenge Guidelines

(Participants can refer to the "Texas 4-H Food Challenge Rules and Guidelines Manual, 2016-2017" for more information and to prepare for the state contest. For the District 9 4-H Food Challenge specifically, ***the following rules will supersede*** *any rule suggestions made in the state manual. Note that the rules are very similar, but there are a few variations)*

Very few significant changes are included in the written rules from the 2016 to the 2017 Food Challenge guidelines. Changes and clarifications are listed below and highlighted in the text that follows.

Notes of changes/clarifications for 2017:
**** Teams can express a preference for which day they would like to participate.***

****Adjustments to schedule, divisions/categories, and award determination will be made according to the number of teams entered in each age division***

PARTICIPATION RULES

1. Participation. Participants must be 4-H members currently enrolled in a Texas 4-H and Youth Development county program and actively participating in the Food and Nutrition project.

Any participant with known food allergies must notify contest chairs upon entering the contest and send a reminder after the contest schedule is issued and before the contest occurs.

2. Age. Age divisions are determined by a participant's grade as of the current 4-H year.
Junior Division: Grades 3 thru 5
Intermediate Division: Grades 6 thru 8*
Senior Division: Grades 9 thru 12

**If a team has both Junior and Intermediate team members, regardless of the ratio, they must participate as an Intermediate team. For the last few years, District 9 has divided the intermediate category to accommodate the large number of teams participating in this age division. In general, the division has been made according to teams that are intermediate only and teams that have both intermediates and juniors as members. This practice will continue if feasible.*

3. Teams per county. There will be no limit on number of teams entered per county for 2017. *(Please note that this customary in District 9 and will continue as long as is appropriate, however this may change in the future.)*

4. Members per team. Each team will have at least three and no more than five members. Teams may include a combination of members from the Junior and Intermediate age divisions; however the combined team must compete in the Intermediate age division. Senior teams may not include members from any other age division. See rule #2 for age divisions.

5. Substitution of team members. Substitution of team members should be made only if necessary. Only the same number of 4-H members registered for the district contest will be eligible to participate at the district level. No more than two team members may be substituted, up to the day of the Food Challenge. A team may participate with fewer members that registered as long as there are at least 3 members participating.

6. Entry fee. Each participant will be required to pay a registration fee to cover the cost of ingredients and awards for the contest. Registration and fees are due on 4-H Connect.

7. Food categories. There are four possible food categories in each age division: Main Dish, Fruits and Vegetables, Bread and Cereal, and Nutritious Snacks. Teams will be randomly assigned to a category. Assignments will not be announced until the official start of the contest. *It is also possible all groups will have the same category and similar ingredients and with variable options for their recipe creation choices.*

8. Attire. Aprons and hair coverings are not required. Each team will have the option of wearing coordinated clothing, aprons or hair coverings, but it is not required.

9. Resource materials provided at contest. Resource materials will be provided for each team at the contest. These include *Choose MyPlate- 10 Tips for a Great Plate*, *FightBac*, *Nutrient Needs at a Glance*, *Cooking Food Safely is a Matter of Degrees*, *Altering Recipes for Good Health*, *Food Challenge Worksheet*, and copies of grocery receipts (or an official price list).

At the District 9 contest, the "MyPlate mini-poster" will also be available (*this resource is currently NOT included on the state list of resources; however it has important information regarding food group examples and serving suggestions concepts that are evaluated on the scorecard. All teams need to be familiar with this information. Teams advancing to the state will need to be especially aware of this information since the resource will not be available at the state contest*)

No other resource materials will be allowed. Teams may not use their personal copies of the resources during the contest.

10. Supply box. Each team must supply their own equipment for the challenge. Teams may bring only the supplies listed in the supply box section as listed in the official Texas 4-H Food Challenge Guide and attached. Any extra equipment will be confiscated until the end of the contest and the team may be disqualified. (*Junior teams will NOT need to use hot plates or electric skillets*). For the safety of team members, it is important that all equipment is tested and participants are familiar with use and functions of the equipment.

Supply boxes and items should be clearly marked with identification of the team/county. The contest officials are not responsible for any items not retrieved after the contest. Although, one supply box per team is ideal, more than one box is acceptable. Teams are NOT disqualified or discounted if they do not have a complete list of supplies; they merely will only have those supplies to work with during the contest. However, anything not on the list must be removed before the contest begins.

11. State Contest Qualification. The top four scoring Senior teams, *not necessarily each first place team in each division*, will advance to the Texas 4-H Food Challenge.

12. Contest Schedule. *A detailed contest schedule will be available during the week preceding the contest and will be sent via email to agents from each county represented as well as team captains and members for which emails are available. The number of heats and categories will depend on the total number of teams entered. The number of teams entering the contest is unlimited and the actual number is unknown until shortly before the contest. The contest schedule and food categories will be structured for maximum efficiency and fairness. Adjustments may be made to the judging times, team distribution, and age and food categories in order to accommodate factors present at the time of the contest. Age groups may be divided into separate categories if there are a large number of teams in any one age division. Age groups will be divided only to keep the total number in a category at a manageable level. Any adjustments made will be designed to be fairly applied to all teams. Someone from the team or representing the team will need to arrive an hour or more before their assigned time to have supply boxes checked and verified. Teams can request to participate specifically Friday or Saturday and all efforts will be made to accommodate such requests.*

13. Participant Orientation: *Because of the staggered start times, there will not be a formal group participant orientation presentation on the day of the contest. Information will be posted on the District 9 4-H website. Informational emails may also be sent to the addresses provided through 4-H Connect contest registration and to county agents. Teams will need to be familiar with the written information concerning the contest. Questions should be directed to the local Extension office, or the District Office. Contest officials will also be available before and during the contest.*

14. Preparation Observation: Teams will be observed during the preparation phase of the contest and observation notes will be provided to the interviewing judges to consider in their final decisions. Observation notes will include all aspects of the preparation phase including food safety practices, teamwork, and timely clean-up. Behavior during the wait time before interviewing will also be observed. To ensure fairness to all teams, members cannot talk to each other while waiting for their interview time. Violation of the no talking rule is grounds for dismissal from the contest. Contestants are encouraged to bring a book to occupy their time if the wait becomes lengthy. The committee continues to work on strategies to move the interview process along more quickly and to provide activities during the wait time.

15. Awards- ***Awards will be given for the top 4 teams in each age division. The method of determining the top 4 teams may vary depending on circumstances of the Big Time in D9 environment. For instance, if all teams compete in each designated age division, the top 4 teams from each division will be recognized as the top 4 teams. If age divisions are divided into 2 groups, the top two teams from each group will be designated as the top 4 teams of the age division. If an age division is divided into 4 categories and the top team in each group will be designated as the top 4 teams.***

RULES OF PLAY

1. Teams will report to the designated location for check-in.

2. Because of the staggered start times for each heat (sometimes called "round"), no formal participant orientation will be conducted. Teams are responsible for thoroughly reviewing information in this packet and available online at the District 9 4-H website. A brief review of procedure will be held 10 minutes prior to each heat.

3. Each team will be directed to a cooking/preparation station. There will be a set of ingredients at each station, but no recipe. The ingredients will represent a recipe from one of the following categories: Main Dish, Fruits and Vegetables, Bread and Cereal, and Nutritious Snacks.

4. General guidelines, resources and instructions will be located at each station to assist the team.

5. Each team will have 40 minutes to prepare a dish, plan a presentation, and clean up the preparation area.

6. Only participants and contest officials will be allowed in food preparation areas.

7. Teams that may experience any equipment malfunction(s) may not replace the equipment with supplies from another team, leader, volunteer, county Extension agent or contest official. Instead, team members must work together and be creative in completing preparation without the malfunctioning equipment.

8. Preparation: Each team will be provided with a set of ingredients reflective of the assigned category, and will create a dish using them. The ingredients and a clue will be at each station to assist the team.

    a. The ingredients provided to each team are based upon a recipe; however, teams are challenged with being creative and developing their own recipe with the ingredients provided.

    b. Teams are ***not*** required to incorporate each ingredient into the dish. (*Please note: the state contest requires the use of all ingredients, and* teams may determine the exact amount of each ingredient to use.)

    c. Teams will have access to a "pantry" of additional ingredients that may be incorporated into their recipe. The number of additional ingredients a team may get will be determined by contest officials and announced prior to the beginning of the preparation phase.

        Food pantry items (optional items that teams can acquire during the contest) may be offered to help teams enhance creativity. However, these additional items will not be a determining factor in the contest placing. If the supply of an item depletes, or no pantry items are offered, teams are encouraged to discuss potential variations in their interview. As always, judges are instructed to evaluate based on knowledge and presentation, not on actual ingredients used.

d. The ingredients provided to each team may also be used to garnish the dish. Additional garnishing items will not be provided.

e. Note cards and the Food Challenge Worksheet may be used to write down the recipe that the team invents, along with notes related to nutrition, food safety, and cost analysis. In the presentation, teams should be exact on ingredients used, preparation steps, cooking time, temperature, etc.

f. *District 9 has been including the preparation phase in the consideration for judging for several years.* Recently, teams at the **state** contest were also judged during the preparation phase of the contest. This judging is based upon observation only! Refer to the preparation Scorecard for details. *The state scorecard will be used at the district contest.*

e. Junior teams will not be given recipes that require the use of hot plates or electric skillets. Although junior teams may have a skillet or hot plate in their supply box, they are encouraged NOT to use it. The use of heat will not have a bearing on the judging/placing or increase a team's chances of winning.

9. Food safety: Each station will have food safety resources. Teams should follow the steps listed to ensure proper food safety and be prepared to discuss food safety practices used in the team presentation to the judges.

10. Nutrition: Each station will have a variety of nutrition resources/references. Each team should name key nutrients in their dish and their functions.

11. Cost analysis: Prices will be available for each ingredient provided to teams. Teams will need to find the ingredients on the list and calculate the price of the dish along with the price per serving. Teams will also need to determine the number of servings per recipe.

12. Presentation: At the conclusion of the preparation phase, each team will present their dish, according to the criteria on the score card, to a panel of at least two judges.

    a. All team members must participate in the presentation, with at least three of them having a speaking role.

    b. Judging time will include: 5 minutes for the presentation; 3 minutes for judges' questions; 4 minutes between team presentations for judges to score and write comments

        IMPORTANT NOTE*: Interview/judging times and overall schedule may be altered to accommodate time and facility restraints. If adjustments occur, they will be applied equally to <u>all teams</u> in any affected category.*

    c. Teams are allowed the use of note cards during the presentation but are discouraged to read from them, as this minimizes the effectiveness of their communication.

d. Judges may ask teams questions that are not directly related to the dish prepared. For example, some questions may address the general knowledge gained through the 4-H members' food and nutrition project learning experiences.

e. Talking and writing are NOT allowed among any team members while waiting to give the team presentation. Team members caught talking and/or writing will receive a warning. The second time, the team will be disqualified and asked to leave the contest facility. Team members should not have pens or pencils in their possession while waiting to give their presentation. *(This rule is established to ensure fairness for all teams by so that all teams are limited to the same amount of time for possible preparation discussion).*

f. Observation notes from the preparation phase will be shared with the judges to consider in their deliberations.

13. Clean-up: Teams must clean up their preparation areas. Clean-up time is included in the 40-minute preparation allotment. Teams should plan to not have access to a kitchen facility; therefore, dirty dishes should be placed in a plastic container, bag or box to be cleaned at home. Left-over food should be disposed of properly. Failure to clean-up properly and within the allotted time will be included in the observation notes.

    All dirty dishes should be placed in a plastic bag. Food should not be dumped in the public restroom sinks! Hot items can be placed on top of the box and left out to cool, but it is important that everything else be put away and that the area look generally neat and clean.

14. To ensure food safety, judges are not allowed to taste the foods prepared. No left-over food should be shared with any participant or the audience.

15. Placing will be based on rankings of teams by judges. Judges' results are final.

16. Awards will be announced during the "Big Time in D9" awards assembly the evening following the contest. Teams and supporters are encouraged to stay for the entire awards presentation.

SUPPLY BOX

Each team will bring an equipment box containing only one each of the following items, unless a different quantity is noted:

Beverage glass

Bowls: Dip Size (1) Mixing (2) Serving (1)

Calculator

Can Opener

Cookie Sheet

Colander

Cutting Boards (2)

Disposable tasting spoons (no limit)

Dry measuring cups (1 set)

Electric Skillet (*not required for Junior teams*)

Extension cord *(Teams should be certain the extension cord is compatible [2-prong/3-prong] with the plugs on their electrical supplies)*

First aid kit

Food thermometer

Fork

Gloves

Grater

Hand sanitizer

Hot pads (up to 5)

Kitchen shears (1 pair)

Kitchen timer

Knives (2)

Liquid measuring cup

Measuring spoons (1 set)

Non-stick cooking spray

Note cards (no larger than 5 X 7) (1 package)

Paper towels (1 roll)

Pancake turner

Pencils (no limit)

Plastic box or trash bag for dirty equipment

Pot with lid

Potato masher

Potato peeler

Sanitizing wipes (1 container)

Serving platter

Serving utensil

Skewers (1 set)

Skillet with lid

Spatula

Stirring spoon

Storage bags (1 box)

Tongs

Two single-burner hot plates OR one double-burner plate - electric only (*not required for Junior teams*)

Whisk

PARTICIPANT ORIENTATION NOTES

1. Welcome to the 4-H Food Challenge!

2. Teams will have 40 minutes to prepare a dish, plan a presentation, and clean up the preparation area. A 20 minute warning, 10 minute warning, 5 minute warning, and 1 minute warning will be given. We suggest that you start working on your presentation at the 10 minute warning. NO talking is allowed after the 40 minutes is up.

3. Each team will be provided with a set of ingredients reflective of the assigned category and a clue, and will create a dish using them.

a. The ingredients provided to each team are based upon a recipe; however, teams are challenged with being creative and developing their own recipe with the ingredients provided.

b. Teams are not required to use each ingredient in the dish *(please note this may be different that the state contest rule).* Teams may determine the exact amount of each ingredient to use.

c. A "pantry" of additional ingredients may be provided from which teams can choose items to enhance their recipe. *Food Pantry items (optional items that team can acquire during the contest) may be offered to help teams enhance creativity (this may not happen at state). However, these additional items will not be a determining factor in the contests. If a supply of an item depletes, or no pantry items are offered, teams are encouraged to discuss potential variations in their interview. As always, judges are instructed to evaluate based on knowledge and presentation, not on actual ingredients.*

d. The ingredients provided to each team may also be used to garnish the dish. Additional garnishing items will not be provided.

4. Teams that may experience any equipment malfunction(s) may not replace the equipment with supplies from another team, leaders, volunteers, county Extension agents or contest officials. Instead, team members must work together and be creative in completing preparation without the malfunctioning equipment.

5. If electricity goes out during the preparation phase of the contest, teams are asked to turn away from the table immediately. Contest officials will stop the clock so that no preparation time is lost.

If there is not a clear power outage (for instance a breaker trips and only some outlets are not working) teams should treat the event as an equipment malfunction and continue to work (unless contest officials call for a cease of activity in the room). Judges will be informed of any major malfunctions in the prep room and will take the interruption into consideration. Remember that the food appearance/quality is only 5% of the score. The rest of your score is based on what you know, how you communicate and how you work together.

6. Ingredients may be divided among teams to minimize the cost and reduce wastefulness. If teams need to see an original food package and/or the nutrition facts label, information may view at the ingredient table set up in the preparation room.

7. Assume all fresh produce (fruits and vegetables) has been washed prior to the contest. *(But, also know that it may not have been washed due to time constraints, therefore do not consume any of the contest food. Along the same lines, potentially hazardous foods may not have been kept at the proper temperature and therefore should not be consumed either)*

8. Igloos/jugs full of water or sinks will be located throughout the room if you need it.

9. Trash cans are located throughout the room for your use.

10. Each team has the opportunity to include a small first aid kit in your supply box. If you did not bring a first aid kit, contest officials have one. If you happen to need first aid due to a cut or burn, please let an agent or contest volunteer know immediately so they can assist you!

11. During the preparation phase teams will be observed by monitors in the room. Notes of the observation will be shared with the interview judges to use in their final decision making. Teamwork, following food safety principles, and timely clean-up will be noted in addition to any other observation related to the objectives of the contest.

12. After the 40-minute preparation time is up, your area MUST be clean and all the supplies and extra food items must be in your supply box. If you have a hot plate cooling, it may be the only thing out on the table other than the food you are presenting to the judges.

13. After time is called for the 40-minute preparation period, talking and writing is NOT allowed among any team members. Team members caught talking and/or writing will receive a warning. The second time, the team will be disqualified and asked to leave the contest facility. Team members should not have pens or pencils in their possession while waiting to give their presentation. This helps ensure all teams have an equally fair chance in preparing their presentation.

14. Please remain still once time is up and do not leave the room unless escorted by your group leader to another room to wait to give your team presentation.

15. If you need to use the restroom, please let your group leader know.

16. *Your team will be judged as close to your assigned time as possible. Interview times and schedule may be altered to accommodate time restraints. If adjustments occur, they will be applied equally to all teams.*

17. After your team presentation, you are dismissed to leave. Please be quiet when you leave – taking your dish and supply box with you! Please do not wash dishes in the public restrooms. Contest officials are not responsible for any items left behind.

18. If you have any questions, please ask the agents and/or volunteers helping with the contest.

19. Best wishes for a fun and educational experience!!!

2016-2017 Texas 4-H Discover Science Method Research Poster Contest

INTRODUCTION

The 4-H Discover Science Method Research Poster Contest allows youth the opportunity to apply the scientific method to the subject matter they have learned through their 4-H projects. It is framed in principles of science, engineering, and technology (S.E.T.). Participants will 1) construct a poster, 2) write a final written report, and 3) deliver a short oral presentation. Participants may enter in one of six categories:

1. Biochemistry/microbiology/food science
2. Environmental science/chemistry/earth science
3. Animal science
4. Plant and soil science
5. Engineering/physics
6. Consumer product testing

The scientific method is a process for experimentation that is used to explore observations and answer questions. Scientists use the scientific method to explore relationships in nature.

Steps of the Scientific Method

- Ask a question
- Investigate previous research on the topic
- Construct a hypothesis
- Test hypothesis by performing an experiment
- Analyze data and formulate results
- Interpret results and draw a conclusion
- Communicate results

Cash awards given to Senior Level 1st, 2nd, and 3rd place winners in each category!

OBJECTIVES

- To initiate a program based on science and the scientific method
- To increase awareness of science, engineering and technology among 4-H members
- To place science, engineering, and technology in the forefront of 4-H project work
    - **Science** abilities encompass the entirety of the cause and effect on the world
    - **Engineering** is recognized as a problem-solving and design process within science and technology
    - **Technology** is human innovation

NOTE: *The Scientific Method is not to be confused with the 'Engineering Design Process' which is applied by engineers to create original design of prototypes, processes, or solutions to engineering problems.*

CONTEST OVERVIEW

Eligibility – The contest is separated into Intermediate and Senior divisions. Only intermediates and seniors specified in the Texas 4-H Rules and Guidelines may compete.

Research projects may be an individual effort, or be conducted by a team of up to three (3) 4-H members. Team members should keep separate research journals (notebooks) and then combine the notes and data to construct and submit (1) final project report. Topics for the Texas 4-H Research Poster Contest should be age appropriate. Research should be of a nature that the 4-H member can design, experiment, analyze and write a meaningful report on the age-appropriate topic. Sample projects are listed on page 12.

Research Categories – Individuals and teams can enter in one of six categories. Topics may cover any field as long as it is research oriented, and may include humanities or social sciences that meet the research criteria.

1. **Biochemistry/Microbiology/Food Science**

   Biology of microorganisms – bacteriology, virology, protozoology, fungi bacterial genetics, yeast. The topic may also include chemistry of life processes such as molecular biology, molecular genetics, enzymes, photosynthesis, protein chemistry, food chemistry, hormones, etc. *Example: Compare different yeast fermentation techniques for converting sugar to alcohol.*

2. **Environmental Science/Chemistry/Earth Sciences**

   Study of pollution sources (air, water, and/or land) and their control. Study of nature and composition of matter and laws governing it – physical chemistry, organic chemistry, inorganic chemistry, geology, mineralogy, oceanography, geography. *Example: Examine the effects of cropping practices on wildlife population.*

3. **Animal Science**

   Study of animals – animal genetics, entomology, animal husbandry, animal physiology, studies of

invertebrates. *Example: Study the effects of growth hormones on meat or milk production.*

4. **Plant and Soil Science**

   Study of plant life – agriculture, agronomy, horticulture, forestry, plant taxonomy, plant genetics, etc. *Example: Study the effects of weather and soil conditions on plant growth.*

5. **Engineering/Physics**

   Technology projects that directly apply scientific principles to manufacturing and practical uses – mechanical, chemical, electrical, environmental engineering, etc. Theories, principles, and laws governing energy and the effect of energy on matter. *Examples: Compare the energy output and efficiency from different types of solar panels.*

6. **Consumer Product Testing**

   Comparison of product quality, effectiveness, usefulness, economy, cost, smell, environmental friendliness, etc. *Example: Compare the effectiveness of different household cleaning products on removing bacteria from kitchen surfaces.*

Judging Criteria

Entries are judged based on their adherence to the steps and principles of the Scientific Method. The contest requires a **poster**, **final written report**, and **oral presentation and interview**. Intermediate and senior age divisions are judged separately. In Round 1, winners are announced for each contest category and age division. The scoring rubric for Round 1 is provided on pages 13-14 of this document. First place winners in each category and age division will compete in Round 2 to determine overall placement. Round 2 contestants will present their posters in front of other contestants, audience members, and a panel of judges. Only part 3 of the scoring rubric "Oral Presentation and Interview" is used to select overall winners for each age division. Round 2 finalists will be announced and will walk the stage at Roundup assembly to receive final placement and awards.

Research poster – The poster should summarize each step of the Scientific Method as it relates to the project. The poster should include an abstract, introduction, background, hypothesis, methodology, results, and conclusions. Following are suggestions for a good research poster:

- Good title – Your title is an attention getter. A good title should simply and accurately present your project and its nature. The title should be no longer than 10 words.
- Nice visuals – Include photographs, drawings, charts, and graphs as appropriate to effectively communicate your project. Visuals should be clear and easy to interpret.

Include headings and labels on graphs, charts, diagrams, and tables.

- Creative but logically organized – Your poster should be logically sequenced and easy to follow. A brief glance should permit anyone (especially the judges) to quickly locate the title, summary, experiments, results, and conclusions.
- Clearly presented – The font size should be large enough to read from 3 feet away. The poster should include the information the judges will need without being crowded.

Poster Guidelines: Poster should be no larger than 48'' wide by 30" deep (the distance from front to back) 108" high (from floor to top, includes table if project is on table top). Note that tables are generally 24" wide, but can vary with convention location. Items that do not adhere to the poster must fit on the tabletop within the dimension of the unfolded poster. Avoid lights, banners, shelves, etc. that are outside of the poster dimensions.

Final written report – The final written report should chronicle the 4-H member's or team's work on the chosen research topic. Content should be organized with the following headings:

- Title Page – Include title of entry, contestant name(s), category, age division, and county.
- Abstract – Brief and concise description of the purpose, hypothesis, research methods, results and conclusions. (Use no more than 5 to 6 sentences)
- Introduction – State the question or problem being studied and why it is important.
- Literature Review – Provide an overview of what research has already been done to address the problem or issue. Be sure to cite references.
- Materials and Methods – Describe the manner in which the study or experiment was conducted. After reading this section, readers should have sufficient information to replicate the study.
- Results – Summarize data and final results obtained from the study or experiment. It is helpful to present results using graphs and/or tables.
- Discussion & Conclusions – Discuss what conclusions you draw from the results. Answer whether your hypothesis was supported or rejected based upon the results. Suggest what further study is needed based on your results.
- References (APA Format) – List significant sources of information used in your final written report. Refer to the following document for help on citing references: http://writing.wisc.edu/Handbook/American_Psychological_Association_%28APA%29_Documentation_M.pdf
- Acknowledgements – Give credit to individuals or groups who assisted you with the project.

The final report may be typed or hand-written. It may be bound, or it may be submitted in a 3-ring binder. Research journal entries may be added as an appendix at the back of the

report. **The Final Written Report is due upon check-in the day of the contest.**

Your Research Journal (notebook)

A research journal (or notebook) should be kept current throughout the duration of the project and used to complete the final written report. Your journal should chronical all research activity including meeting notes with County Extension Agents, details regarding your experiment, recorded raw data, and other information as appropriate. For project teams, each member should keep his/her personal journal and contribute to the final written report. The journal will not be judged, but you are encouraged to bring it to the competition.

Oral presentation and interview – The contestant(s) will give a 7-10 minute presentation and have a short interview by judges. If you enter as a team, all team members must have a speaking role during the presentation. Following are suggestions for presenting your poster:

- Be sure to state the title and purpose of your project. Provide a brief explanation of why you selected the topic and why it is important to you.
- Speak in a loud and clear voice.
- Use vocabulary which demonstrates knowledge of the subject matter.
- Stay relaxed and use good posture. Avoid fidgeting and maintain eye contact with judges.
- Practice your presentation and anticipate the types of questions a judge may ask.

Project Certification (by County Extension Agent or designee)

The County Extension Agent or their designee must approve all projects. The County Extension Agent, with special emphasis on research projects that involved human and animal subjects, must also review and certify compliance with the Human Vertebrate Endorsement or Non-Human Vertebrate Endorsement forms if applicable. These forms are located on pages 17-18 this document.

Entry Procedure and Deadline

Individuals or teams of up to (3) people may enter the contest in their appropriate age division (Intermediate or Senior) in one of the six topic categories previously listed.

To enter, complete the **Entry Form**, **County Extension Agent Approval Form**, **Human Vertebrate Endorsement** and **Non-Human Vertebrate Endorsement** forms located on

pages 15-18.

Upload all forms when you register at 4-H Connect. Registration will be open April 17, 2016 through May 16, 2017. *Entries received after this date may not be included in the contest.*

Suggested Project Activity

1. **Set meeting with County Extension Agent**
    a. Take information with you to outline your research project
    b. Discuss and narrow down topic
    c. Discuss your experiences related to this topic and why you are interested
    d. Review safety guidelines with County Extension Agent and parents
    e. Review articles or books on the topic that interest you
    f. Plan an initial project timeline of project activity
    g. Record meeting notes in your research journal and date it

2. **Generate Research Question and Hypothesis**
    a. Write your inquiry question
    b. Begin with what you know
    c. Write why you want to conduct an experiment on the subject
    d. Determine if you have sufficient resources to conduct the experiment
    e. Set meeting with County Extension Agent to discuss your question and hypothesis

3. **Design Research and Conduct Investigation**
    a. Write your hypothesis (what you think will happen)
    b. Research variables (what they are, and what type of variables) and what controls are needed for experiment
    c. List the materials and methods you will use and the experimental procedures you will follow
    d. Set meeting with County Extension Agent to discuss your experiment

4. **Perform Experiment**
    a. Gather all the materials you will need to begin your experiment
    b. Journal entries should be as complete as possible
    c. Notes are the way to put your observations down so later you can find answers
    d. Dates, times, and thoughts you have about the experiment should be written
    e. Plan data records that need to be collected
    f. Conduct experiment or research
    g. Collect and organize data
    h. Set regular meetings with your County Extension Agent to report the progress of your research
        i. Take your research journal each time so each of you sign and date the meeting notes page
        ii. Bring out any unique things you are recording in your journal
        iii. Write down ideas from other research projects that interest you from your work
        iv. Begin thinking of how to organize information to put on the poster display

5. **Analyze Data and Prepare Report**
    a. Identify any patterns in results
    b. Explicitly use results to answer the question and test the hypothesis
    c. Point out sources of errors or limitations
    d. Develop your presentation and sketch your poster display layout
    e. Set meeting with County Extension Agent to review your journal and to plan your final poster lay out and written report
    f. Draft your poster and final written report
    g. Practice your poster presentation among different groups
    h. Share results with others in your community and gather feedback
    i. Finalize your poster and written report based on feedback
    j. Now relax – the hard work is over. Now enjoy telling everyone about it at Roundup!

Research Safety

Safety should be a primary concern for every science experiment. Almost any tool or technique, no matter how safe, can be used in an unsafe manner. At the same time, many potentially dangerous tools are perfectly safe if they are used in the proper way. So how do you know if your project is within reasonable safety guidelines? Science Buddies (www.sciencebuddies.org) recommends you ask three simple questions to test your project's level of safety.

Is it safe for other people or animals that are involved? All projects involving humans as subjects must involve minimal risk. Unacceptable risks include ingestion of any substance or physical contact with any potentially hazardous materials, as well as unnecessary physical, psychological, or emotional stress, including invasion of privacy. Even if you are simply surveying other students, you should review your questions in advance and decide if the questions meet this test, and determine if a parent/guardian's consent is needed for any students that are participating. If you are not sure, do not hesitate to ask your County Extension Agent, parent, or mentor to help you decide.

Live animals (in particular vertebrate animals-those with a backbone) should be housed, cared for, and observed in a safe and humane manner.

If you are participating in another science fair at your classroom or school fair, does your project meet the safety rules for that higher-level fair? If you will be participating in a city or county-wide fair, make sure that the projects meet the rules of that fair. Science fairs affiliated with the Intel International Science and Engineering Fair (ISEF) must follow very strict and detailed safety rules, often including pre-approval before experimentation begins. The Science Buddies website has an overview of these rules on the Scientific Review Committee (SRC) page.

Finally, have you addressed safety concerns to your parents' and County Extension Agent's satisfaction? Make sure you address all safety issues in your project proposal so your adult supervisors are aware of any issues ahead of time. Your County Extension Agent will then evaluate your project based on the following questions:

1. Where will the experiment be performed?
2. What safety gear will be used?
3. Who will be supervising the experiment?
4. Are you knowledgeable about or do you have training in the procedures being used?

If in doubt about the safety of the experiment, ask your County Extension Agent, parent, or mentor for advice. Be prepared to choose another project if your County Extension Agent decides that yours does not meet age appropriateness or the safety guidelines. Hopefully good common sense and the questions above will help you put together a fun, informative, and safe research project.

Poster Exhibit Safety

1. If an exhibit becomes unsafe or unsuitable for display, it will be removed and deemed ineligible for any awards.

2. Projects which involve vertebrate animal subjects must conform to the following statement: **Experiments on live animals involving surgery, the removal of parts, injection of harmful chemicals, and/or exposure to harmful environments, are not acceptable at the Discover Scientific Method Research Poster Contest.** Live vertebrates are not permitted at the Discover Scientific Method Research Poster Contest.

3. Toxic and hazardous chemicals are prohibited.

4. All necessary chemical glassware must be displayed in a stable manner. The items must be back from the edge of the table and may not be operational at any time.

5. 4-H Member should substitute colored water, photographs or drawings for chemicals.

6. Crystals, other than sucrose (sugar) and sodium chloride (salt), may not be displayed. Projects involving crystals can be represented by pictures or other three-dimensional models.

7. Hypodermic needles and syringes may not be displayed in any exhibit at the Discover Scientific Method Research Poster Contest.

8. It is critically important that no person be exposed to any bacteria that are considered pathogenic. Therefore, the following two rules are very important: **No wild cultures incubated above room temperature; no cultures taken from humans or other warm blooded animals may be used.** This includes, but is not limited to skin, throat and mouth.

9. Plastic petri dishes must be sealed.

10. Lasers may not be used in any exhibit.

11. Dangerous and combustible materials are prohibited.

12. No exhibit shall have open flames. Any part of an exhibit that can get hotter than 100 degrees Celsius (boiling water temperature) must be adequately protected from its surroundings.

13. If an exhibit includes electrical wiring or devices, they must be safe. For voltages above 20 volts, special precautions must be taken. All connections must be secure and provide suitable protection against short circuits, etc.

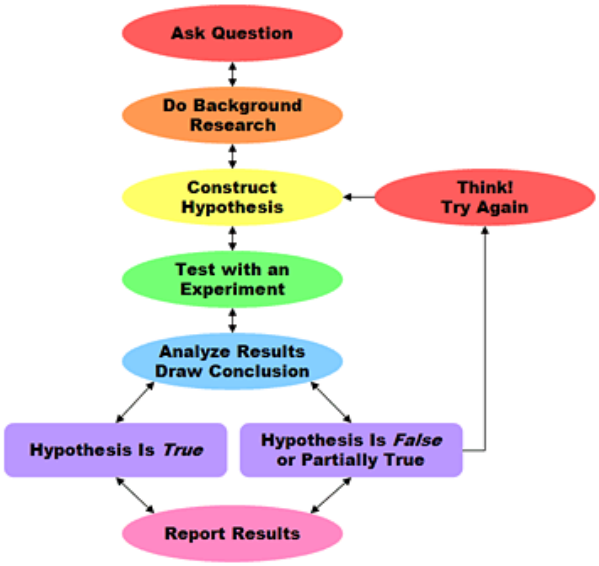
14. All wiring carrying more than 20 volts must be well insulated. Also, the connections must either be soldered or secured by UL approved fasteners. The wire used must be insulated adequately for the maximum voltage that will be present and the wire must be of sufficient size to carry the maximum current you anticipate. Open knife switches or doorbell-type push buttons in circuits using more than 20 volts may not be used.

15. If the exhibit will be connected to 120 volt AC power (plugged into a wall outlet) fuses or circuit breakers must be provided to protect not only the exhibit but also any others that may share the same sources of power. The power cord used must be UL approved for the voltage and current it will be carrying, and it must be at least 1.8 meters (6 feet) long. Discover Scientific Method Research Poster Contest staff must be notified of the need for power at the time of certification so power can be ordered in advance.

16. Exhibits requiring voltage in excess of 120 volts AC are not allowed.

THE SCIENTIFIC METHOD (excerpt from Science Buddies presentations for teachers)

Scientific method refers to techniques for investigating phenomena, acquiring new knowledge, or correcting and integrating previous knowledge. To be termed scientific, a method of inquiry must be based on gathering observable, empirical and measurable evidence subject to specific principles of reasoning. A scientific method consists of the collection of data through observation and experimentation, and the formulation and testing of hypotheses.



Reasoning is the cognitive process of looking for reasons for beliefs, conclusions, actions or feelings. Although reasoning was once thought to be a uniquely human capability, other animals also engage in reasoning.

A hypothesis consists either of a suggested explanation for an observable phenomenon or of a reasoned proposal predicting a possible causal correlation among multiple phenomena. The term derives from the Greek, *"hypotithenai*" meaning "to put under" or "to suppose." The scientific method requires that one can test a scientific hypothesis.

The steps of the scientific method are:

- Ask a question
- Investigate previous research on the topic
- Construct a hypothesis - a prediction based on previous research
- Test hypothesis by performing an experiment
- Analyze data and formulate results
- Interpret results and draw a conclusion
- Communicate results

The scientific method is a process for experimentation used to explore observations and answer questions. Scientists use the scientific method to search for cause and effect relationships in nature. In other words, they design an experiment so that changes to one item cause something else to vary in a predictable way. Just as it does for a professional scientist, the scientific method will help you to focus your research poster project question, construct a hypothesis, design, execute, and evaluate your experiment.

Steps of the Scientific Method

- **Ask a Question:** The scientific method starts when you ask a question about something that you observe: How, What, When, Who, Which, Why, or Where? And, in order for the scientific method to answer the question it must be about something that you can measure, preferably with a number.

- **Investigate previous research on the topic:** Rather than starting from scratch in putting together a plan for answering your question, you want to be a savvy scientist using library and Internet research to help you find the best way to do things and insure that you don't repeat mistakes from the past.

- **Construct a Hypothesis:** A hypothesis is an educated guess about how things work: "If _____[I do this] _____, then _____[this]_____ will happen." You must state your hypothesis in a way that you can easily measure, and of course, your hypothesis should be constructed in a way to help you answer your original question.

- **Test Your Hypothesis by Performing an Experiment:** Your experiment tests whether your hypothesis is true or false. It is important for your experiment to be a fair test. You conduct a fair test by making sure that you change only one factor at a time while keeping all other conditions the same. You should also repeat your experiments several times to make sure that the first results weren't just an accident.

- **Analyze Your Data and Formulate Results:** Once your experiment is complete, you collect your measurements and analyze them to see if your hypothesis is true or false.

Scientists often find that their hypothesis was false, and in such cases they will construct a new hypothesis starting the entire process of the scientific method over again. Even if they find that their hypothesis was true, they may want to test it again in a new way.

- **Interpret Results and Draw a Conclusion:** What do the results mean? How can results be in a manner to support your conclusion?

- **Communicate Your Results**: To complete your project you will communicate your results to others in a final report and display board. Professional scientists do almost exactly the same thing by publishing their final report in a scientific journal or by presenting their results on a poster at a scientific meeting.

  Even though we show the scientific method as a series of steps, keep in mind that new information or thinking might cause a scientist to back up and repeat steps at any point during the process. A process like the scientific method that involves such backing up and repeating is called an iterative process.

SUPPLEMENTAL RESOURCES

Science Projects for 4-H from Science Buddies

http://www.sciencebuddies.org/science-fair-projects/parents_4h.shtml

Making an Academic Poster Presentation

https://nau.edu/undergraduate-research/poster-presentation-tips/

Scientific Poster Design

http://hsp.berkeley.edu/sites/default/files/ScientificPosters.pdf

Tips on Making Presentations

https://www.kent.ac.uk/careers/presentationskills.htm

SAMPLE 2015-2016 CONTEST ENTRIES

- *Effects of Environmental Temperature on the Presence of Sipha Flava on Johnson Grass.* "The objective of this experiment is to determine if sugarcane aphids are surviving the winter, and determine when the aphids will reappear to prevent crop loss."

- *Effects of Estrus Synchronization on Conception Rate, Pregnancy Type, & Length of Breeding Season.* "The purpose of this project was to compare the benefits of breeding on a synchronized natural estrus compared to natural breeding to determine if one had the advantage over the other."

- *Keeping Score with Dyna-Hex 4.* "This project will determine the effectiveness of common household cleaning agents such as (Clorox bleach, Dawn dishwashing liquid and Purell antibacterial hand sanitizer) vs hospital-grade Dyna-hex 4 or Chlorhexidine Gluconate 4% solution antiseptic at destroying bacteria."

- *Do You Feel the Bag?* "The purpose of this experiment is to determine if it is really possible to select the bag of chips with the most chips by feel alone."

- *"PUREfected" Water – A Study on Solar Water Disinfection.* "The purpose of this experiment was to test if solar water disinfection could help prevent water borne diseases caused by E. coli bacteria."

- *No Till Soil … Saves Soil and Moisture.* "The purpose of this experiment was to observe which farming practice retains the most soil moisture and has the least amount of run-off soil."

- *The Impact of Defoliation, Desiccation, Green Leaf and Growth on Different Combinations of PPO's.* "The objective of this experiment was to investigate the effects of different combinations and concentrations of PPO's, including Display, ETX, AIM, Sharpen, and Sharpen/E on defoliation, desiccation, green leaf, and regrowth percentages of dry land cotton."

- *The Effect of Arrow Fletchting Type on Arrow Accuracy and Consistency.* "The question posed was if there would be a difference in accuracy and consistence between the three most common types of arrow fletching – feathers, spin wings and vanes?"

- *SPLISH! SPLASH!: A Study of E. coli Levels in Storm Water Runoff Affecting the Concho River Watershed.* "The focus of this research project is to identify Escherichia coli bacteria levels in storm water runoff within the geographical area of a specific neighborhood. The objective was to determine if these levels exceeded the EPA's safe surface water standard set by the 2012 Recreational Water Quality Criteria Recommendations 2, and therefore identify a non-point source pollutant's origin."

Texas 4-H Discover Science Method Research Poster Contest

4-Her's Name(s):
Category:
Project Title:

Part 1: Written Report		
Section:	**Possible Points:**	**Points Earned:**
Title Page Should include: 4-Her(s) Name, Category, Age Division, and County.	**2**	
Abstract Abstract should briefly and concisely describe the purpose, hypothesis, methods, results, and conclusions.	**5**	
Introduction Should answer the question, "why was the work done?" It should also clearly state the problem that justifies the research.	**5**	
Literature Review Should detail what information currently exists concerning the research project. Information listed should be materials used in the research.	**3**	
Materials and Methods The materials and methods section should enable others to reproduce the results by duplicating the study.	**10**	
Results Should list a summary of results the project produced.	**10**	
Discussion and Conclusions Should show the conclusions that were drawn from the results of the study and how they relate to the hypothesis.	**10**	
References & Acknowledgements List all significant sources and acknowledge anyone who helped with any aspect of the project.	**5**	
TOTAL (PART 1)	**50**	

Continue on Back →

Part 2: Poster Display		
	Possible Points:	**Points Earned:**
Is the project original and creative?	**5**	
Is the display logical and organized?	**5**	
Are headings and photos appropriate for the project?	**5**	
Are graphs, charts, diagrams, and tables properly labeled?	**5**	
Are colors, fonts, and formats appealing and easy to read?	**5**	
TOTAL (PART 2)	**25**	

PART 3: Oral Presentation and Interview		
	Possible Points:	**Points Earned:**
Did the 4-Her(s) speak in a loud, clear voice?	**5**	
Did the 4-Her(s) use vocabulary which demonstrated an in-depth knowledge of the topic?	**5**	
Did the 4-Her(s) use appropriate posture, body language, and eye contact?	**5**	
Did the 4-Her(s) state the title and purpose of the project and explain the reason for the topic selection?	**5**	
Was the 4-Her(s) well prepared and knowledgeable on the project?	**5**	
TOTAL (PART 3)	**25**	

Total Score (with all three parts combined) _____/100

Judge's Comments:

Judge's Initials: _____

Texas 4-H Discover Scientific Method Research Poster Contest Entry Form

Due Date: May 16, 2017

Scan and upload this form when you register at 4-H Connect.

Contest Name and Location:

4-H Member(s) Name:	
Project Title:	
Category:	
Age Division:	CEA Name:
County:	4-H Club Name:

Project Abstract: Write neatly below, or attach a typed copy with your name and problem on it. Be sure to include your research hypothesis and objective(s).

4-H Member(s) Signature(s): Date:	County Extension Agent Signature: Date:
Parent/Guardian Signature: Date:	Date Entry Received:

Texas 4-H Discover Science Method Research Poster Contest
County Extension Agent Approval Form

Member(s) Name(s) _____ **County/Club** _____

Adult Sponsor Approval: I have read the Research Plan prior to experimentation and agree to sponsor the member(s) and assume reasonable responsibility for compliance with all rules.

CEA Printed Name _____ **Signature** _____ **Date** _____

4-H Member Acknowledgement: I understand the risks and possible dangers to me in the Research Plan. I will adhere to all rules when conducting this research.

4-H Member Printed Name _____ **Signature** _____ **Date** _____

4-H Member Printed Name _____ **Signature** _____ **Date** _____

Parent/Guardian Approval: I have read and understand the risks and possible dangers involved in the Research Plan. I give my consent to my child prior to participating in this research.

Parent/Guardian Printed Name _____ **Signature** _____ **Date** _____

FORM REQUIRED FOR COMPETITION

Scan and upload this form when you register at 4-H Connect. Contact the Contest Superintendent – David Smith davidsmith@tamu.edu with questions or concerns. Due Date: May 16, 2017

Human Vertebrate Endorsement

Recognizing that human beings are vertebrate animals and yet need different criteria than Nonhuman vertebrates, the following policies will govern the use of human beings.

1. No projects involving human cultures of any type (mouth, throat, skin or otherwise) are allowed. However, tissue cultures purchased from reputable biological supply houses or research facilities are suitable for student use.
2. Projects that involve taste, color, texture or any other choice are allowed, but are limited to preference only. Quantities of normal food and non-alcoholic beverages are limited to normal serving amounts or less. No project may use drugs, food or beverages in order to measure their effect on a person.
3. The only human blood that may be used is that which is either obtained through a blood bank, hospital or laboratory. No blood may be drawn by any person or from any person specifically for a science project. This rule does not preclude a student making use of the data collected from blood tests not made exclusively for a science project.
4. Projects that involve exercise and its effect on pulse, respiration rate and blood pressure are approved, if valid, normal physical examination is on file and the exercise is not carried to extreme.
5. Projects that involve learning, ESP, motivation, hearing, vision and surveys are allowed. No project will be allowed that is in violation of these rules.
6. No person may perform any experiment for the student that violates any of the rules.

In this space, briefly describe the use of humans in your project. Use the back of this page if necessary.

The signatures of the student(s) and the CEA indicate this project conforms to the above rules.

CEA Printed Name	Signature	Date
4-H Member Printed Name	Signature	Date
4-H Member Printed Name	Signature	Date

FORM REQUIRED FOR COMPETITION

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Non-Human Vertebrate Endorsement

These rules are strictly enforced. Students and advisors using non-human vertebrates in their project must complete this form. The signature of the student and the advisor indicate the project was done within the rules and regulations of

1. Intrusive techniques used cannot exceed momentary pain and must comply with commonly accepted livestock management procedures.
2. Changing an organism's normal environment by using either aversive stimuli or predatory/prey conditions to study behavior/operant conditioning is prohibited.
3. Food and water cannot be used or withheld for more than 24 hours for maze running and other learning or conditioning activities.
4. The student and advisor have the responsibility to see that animals are properly cared for in a well-ventilated, lighted and warm location with adequate food, water and sanitary conditions. Care must be taken to see that organisms are properly cared for during weekends and vacation periods.
5. Chicken or other bird embryo projects must be terminated at or before ninety-six hours.
6. Projects that involve behavioral studies or newly hatched chickens or other birds will be allowed, provided no change has been made in the normal incubation and hatching of the organism and all vertebrate rules are followed.

In this space, briefly describe the use of vertebrate animals in your project. Use the back of this page if necessary.

The signatures of the student(s) and the CEA indicate this project conforms to the above rules.

CEA Printed Name	Signature	Date
4-H Member Printed Name	Signature	Date
4-H Member Printed Name	Signature	Date

FORM REQUIRED FOR COMPETITION

Scan and upload this form when you register at 4-H Connect. Contact the Contest Superintendent – David Smith davidsmith@tamu.edu with questions or concerns. Due Date: May 16, 2017