

STEM DAY (Science, Technology, Engineering & Math)  
Youth Center  
Saturday, July 28, 2012  
BOB HORTON, Assistant Superintendent

#### GENERAL GUIDELINES

1. Age of Participants:
  - Junior – (4-H Age 13 and under)
  - Senior – (4-H Age 14 and over)
2. Participation Guidelines:
  - No more than one participant in any one class will be allowed per county and no one individual may participate in more than one class; except for class J-11, Canine Companion Challenge. Any individual enrolled in 4-H Robotics 509, 510 or 365 may participate in this event. No county pre-qualification is necessary. For specific guidelines, rules and registration information, visit the following web page: <http://www.ohio4h.org/robotics>.
  - Winner of any one class in 2011 is not eligible to participate in the same class for 2012.
3. Type of Evaluation for Classes J-1 through J-10, (see below for specific guidelines for Class J-11):
  - Participants will have a personal interview evaluation with a judge.
  - Judge will evaluate participant on the following basis (also see sample score sheet):
    - 50% Knowledge (Depth of project understanding)
    - 25% Interview (Ability to communicate project knowledge)
    - 25% Project Display/Exhibit (Application of project knowledge)
4. Participant to bring:
  - Completed project book.
  - A display/exhibit that represents the member's application of learning in the project. May be in addition to what was brought to county 4-H judging.
  - Refer to additional project requirements as listed in class list below.

#### CLASSES

**Veterinary Science Division:** For classes J-1 through J-3, follow information in general guidelines listed above.

- J-1 From Airedales to Zebras Vet Science 1 (4-H 244)  
J-2 All Systems Go! Vet Science 2 (4-H 245)  
J-3 On the Cutting Edge Vet Science 3 (4-H 246)

**Engineering and Food Science Division:** For Classes J-4 through J-10, follow information in general guidelines listed above.

- J-4 Rockets Away (Solid-Fuel Rockets) (4-H 503), Junior  
J-5 Rockets Away (Bottle Rockets) (4-H 501), Junior – depending on local conditions, participants may be asked to launch their 2-liter bottle rocket. If a launch is conducted, all launch equipment will be provided.  
J-6 Self-Determined Rocketry (Includes 4-H 501, 503 & 365), Senior  
J-7 Science Fun with Flight (4-H 502)  
J-8 Science Fun with Dairy Foods (4-H 490)  
J-9 Robotics 1: NeXT Technology (509) -- in addition to the interview, contestants will demonstrate their LEGO NXT robot's ability to complete three or more of the tasks identified in Activity 12 of the 4-H 509 project book in less than 10 minutes. Contestants are required to bring their own test surface on which to demonstrate their robot's completion of these tasks along with a printout of the program.  
J-10 Robotics 2: NeXT Steps (510) -- Contestants are required to bring their own test surface to demonstrate their robot's completion of a task of their choosing along with a printout of the program.  
J-11 Robotics, Canine Companion Challenge – the contest challenges a team of up to two individuals to design, construct, program and operate a battery powered LEGO (NXT/RCX) robot for use in a simulated pet care situation. The team's robot will be required to perform a predetermined set of tasks which simulate tasks that might be required of a real pet care robot. Any individual enrolled in 4-H Robotics 509, 510 or 365 may participate in this event. No county pre-qualification is necessary. For specific guidelines, rules and registration information, visit the following web page: <http://www.ohio4h.org/robotics>.

## AWARDS AND SPONSORS

1. All participants will receive a "Participation Award" sponsored by The Ohio State Fair.
2. Approximately the top 20% of individuals in each class will receive an "Outstanding of the Day" award sponsored by The Ohio State Fair.
3. One individual will be selected from the "Outstanding of the Day" award winners of each class to receive a clock trophy.

## JUDGING SCHEDULE:

For Classes J-1 through J-10, times listed below are for registration. The exact schedule of participation will depend on the number reporting at any one time. Member should check in at the 4-H registration desk in the Youth Center.

- 9:00 a.m.: Champaign, Clark, Delaware, Fairfield, Fayette, Franklin, Knox, Licking, Logan, Madison, Marion, Morrow, Muskingum, Pickaway, Ross, Union
- 10:00 a.m.: Allen, Ashland, Clinton, Coshocton, Crawford, Greene, Hardin, Hocking, Holmes, Miami, Montgomery, Perry, Richland, Shelby, Vinton, Wyandot
- 11:00 a.m.: Athens, Auglaize, Guernsey, Hancock, Highland, Huron, Jackson, Medina, Morgan, Pike, Seneca, Stark, Summit, Tuscarawas, Warren, Wayne, Wood
- 1:00 p.m.: Belmont, Butler, Carroll, Clermont, Darke, Erie, Hamilton, Harrison, Henry, Lorain, Monroe, Noble, Paulding, Portage, Preble, Putnam, Sandusky, Van Wert, Washington
- 2:00 p.m.: Adams, Ashtabula, Brown, Columbiana, Cuyahoga, Defiance, Fulton, Gallia, Geauga, Jefferson, Lake, Lawrence, Lucas, Mahoning, Meigs, Mercer, Ottawa, Scioto, Trumbull, Williams

## 2011 CLASS WINNERS

### Overall Vet Science Winner

J-1	Vet Science I	Amelia Durliat, Hancock
J-2	Vet Science II	Bri Haney, Guernsey
J-3	Vet Science III	Tyler Fields, Marion
J-4	Rockets Away Estes Rocket, Junior	Pete Siebert, Warren
J-5	Self-Determined Rocketry, Senior	Aaron Benson, Fairfield
J-6	Science Fun with Flight, Junior	David Baden, Henry
J-7	Self-Determined Airplanes, Senior	Jared Gandelat, Morrow
J-8	Rockets Away Bottle Rockets, Junior	Kylee Torok, Jefferson
J-9	National Qualifier, Aerospace	Aaron Benson, Fairfield
J-10	Robotics Explorer Lego RCX	Caleb Atlee, Marion
J-11	Robotics Probe Lego RCX	TJ Rataiczak, Noble
J-12	Robotics1: NeXT Technology	Nicholas Sweeney, Fairfield
J-13	Robotics: Canine Companion Challenge	Wesley & Caleb Atlee, Marion

## 4-H STEM DAY Evaluation Sheet

NAME: \_\_\_\_\_ EXHIBITOR NUMBER: \_\_\_\_\_  
 CLASS: \_\_\_\_\_ COUNTY: \_\_\_\_\_  
 PROJECT NAME: \_\_\_\_\_ AGE AS OF JAN. 1 OF CURRENT YEAR: \_\_\_\_\_  
 YEARS IN PROJECT: \_\_\_\_\_ YEARS IN 4-H: \_\_\_\_\_

Brief description of what you brought today to display your project (i.e. poster, equipment):

\_\_\_\_\_

\_\_\_\_\_

**Keep this sheet with you until the judge calls your exhibitor number.**

Judging Guidelines	Excellent	Very Good	Good	Average
50% <b>Knowledge –</b> Depth of understanding of the basic concepts and information presented in the project book				
25% <b>Communication -</b> Ability to express project knowledge Communicates Appropriately Attitude During Interview Personal Appearance	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
25% <b>Project Display/Exhibit</b> Completeness Accuracy and Neatness Originality, Creativity, Functionality Application of Knowledge	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____	_____ _____ _____ _____
<b>Judge's Overall Rating</b> (circle one)	Excellent	Very Good	Good	Average

Judge's Comments -  
Strengths:

Area(s) for additional study: