

DEPARTMENT 45

4-H SCIENCE, ENGINEERING AND TECHNOLOGY

SUPERINTENDENT: ROB BIGELOW

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Pre-registration is mandatory: [Register Here!](#)

1. Before entering, refer to General Information and Youth Rules.
2. Exhibits to arrive on the grounds between 12-7 p.m. Sun., 8/19. Exhibits must be picked up between 8-10 a.m. Sun., 8/26. Fair and superintendents NOT responsible for items left behind after that time.
3. Judging will take place at 6 p.m. Mon., 8/20.
4. All members must be enrolled in the project they wish to exhibit.
5. Attach a 3"x5" index card to entry stating what the item is, its use, what you did, and what was learned.

SPECIAL AWARDS

Grand Champion - Ribbon
Reserve Grand Champion - Ribbon
Best of Show - Ribbon

PREMIUM POINTS

	<u>BLUE</u>	<u>RED</u>	<u>WHITE</u>
Classes 5-15, 20-23, 25-70	12	10	8
Classes 1-4,16-19 & 24	20	15	10

DIVISION

- | | |
|-----------------|-----------|
| A. Junior | C. Senior |
| B. Intermediate | |

AEROSPACE

Superintendent or judge will determine degree of challenge for divisions A-C. If you know the skill level of the model rocket that has been built from kit, add the information to the margin of the entry form. Rockets will not be displayed with live engines. All exhibits in divisions A and B must have been successfully flown prior to exhibiting and require a copy of the exhibitor's plan sheet or design sheet with the exhibit. A completed certificate of flight must accompany each

entry in divisions A and B. Model rocketry will be judged on workmanship and stability according to degree of challenge as determined in model rocketry catalogs.

CLASS

1. Model rockets made by kits
2. Model rockets re-designed by exhibitor
3. Rockets built from plans other than kits
4. Rockets designed and built by exhibitor

CLASS - AEROSPACE PROJECT - entries from the 4-H aerospace project curriculum. Include a 3"x5" card to the entry telling what the item is, its use, what you did, and what was learned from doing the project. Also list the publication title and the page number where the goals are listed for this project.

5. Stage 1: Pre-flight
6. Stage 2: Lift-Off
7. Stage 3: Reaching New Heights
8. Stage 4: Pilot in Command

BICYCLES, ENGINES AND SNOWMOBILING

Class 10 is intended for entries from the 4-H "Start your engines" project. Add to the required 3" x 5" card: the publication title and page number where the goals are listed for this project.

CLASS

9. Bicycles project
10. Small engines project
11. Snowmobiling project

ELECTRICITY

All items entered must include a 3" x 5" card telling what the item is, its use, what you did, and what was learned.

CLASS

12. Electricity project

WELDING

All items entered must have a 3" x 5" card telling what the item is, its use, what you did, any special techniques used, and what was learned.

CLASS

13. A display board featuring at least three different types of welds
14. A display board featuring at least six different types of welds
15. Small welded items
16. Medium welded items
17. Large welded items
18. Large welded construction project

WOODWORKING

The judge will determine if an exhibit is eligible to be entered in classes 19 and 20. Class 21 is intended for entries from the 4-H "Woodworking" project. Add to the required 3" x 5" card: publication title and page number where the goals are listed for this project.

CLASS - WOODWORKING WONDERS

19. Small Woodworking Project
20. Medium Woodworking Project
21. Large, intricate, and/or difficult Woodworking Project.

COMPUTER TECHNOLOGY

All items entered must include a 3" x 5" card telling what the item is, how it was made, computer programs used, and what the maker learned while creating the item.

CLASS

22. Robotics project – any item from the Robotics Project – entry to include an 8.5"x 11" poster that informs the public of the exhibit's use/purpose. May include pictures, written description, etc.

COMPUTER GENERATED ITEMS

Created by using specialized computer programs (Print Shop, Page Maker, etc)

CLASS

23. Flyers/Pamphlets
24. Greeting Cards
25. Certificates
26. Scrapbooks (digital)

COMPUTER GENERATED ITEMS

Created by using a word processing program (a program that will import graphics, manipulate text, etc.) – print out and submit.

CLASS

27. 4-H Club Newsletter (using columns charts, tables, graphs)
28. Spreadsheet showing income and expense (invent data or use for one of your other 4-H projects)
29. Calendars, Address Books, Programs, etc.
30. Magazine or Newspaper (at least 8 pages) – print out
31. Personal Slideshow, music or narration required – minimum 3 minutes – entry must Be Programmed to automatically advance to the next slide – submit on flash drive.
32. Slideshow of 4-H Project or Activity, music or narration required – minimum 3 minutes – entry must be programmed to automatically advance to the next slide – submit on a flash drive Individual Web Page designed by the member (print out)
33. 4-H Club Web Page (not on social media) designed by the member (print out pages and links)
34. Computer Program written by the member (print out program and place in a notebook)

HOMEMADE COMPUTER EQUIPMENT

CLASS

35. Computer Tool Kit
36. Software Tool Kit

DIGITAL ART

CLASS

37. Small Digital Art Items (under 5"x7")
38. Medium Sized Digital Art Items (larger than 5"x7" and smaller than 8"x12")
39. Large Digital Art Items (larger than 8"x12")

ENVIRONMENTAL STEWARDSHIP

Each exhibit must be properly labeled, mounted, identified, and classified where appropriate.

CLASS - DISCOVERY

40. Air
41. Energy
42. Forestry
43. Marine Life
44. Soil
45. Water
46. Wildlife

CLASS - OUTDOOR ADVENTURES

47. Any item or display from the "Hiking Trails" project
48. Any item or display from the "Camping Adventures" project
49. Any item or display from the "Backpacking Adventures" project

CLASS - SCIENCE DISCOVERY

50. Any item or display related to rocks and minerals
51. Any item or display related to the 3R's: reduce, reuse, and recycle
52. Any item or display related to oceanography
53. Any item or display related to weather or climate
54. Any item or display related to spiders
55. Any item or display related to astronomy or outer space

CLASS - WIND ENERGY

56. Any item or display made by the member in the wind energy project

CLASS - FORESTRY

57. Any item or display from the "Follow the Path" project
58. Any item or display from the "Reach for the Canopy" project
59. Any item or display from the "Explore the Deep Woods" project

CLASS - SPORT FISHING

60. Any item or display from the "Take the Bait" project
61. Any item or display from the "Reel in the Fun" project
62. Any item or display from the "Cast into the Future" project

CLASS - SHOOTING SPORTS

Targets are not acceptable entries. Firearms are not allowed as exhibits.

63. Any item or display from the riflery project
64. Any item or display from the pistol project
65. Any item or display from the shotgun project
66. Any item or display from the archery project
67. Any item or display from the hunting project
68. Any item or display from the black powder/muzzle loading project

ENTOMOLOGY

The exhibits in entomology are open to members enrolled in entomology, garden, home grounds, environmental stewardship, dairy and livestock projects. All insect exhibits must be labeled to give the order and common name of insects in the collection and scientific name to as many as possible. All work, including the labeling, should be that of a member. Exhibits previously exhibited at the Benton Franklin Fair are ineligible unless collections are materially enlarged, changed, or improved.

CLASS - ENTOMOLOGY

69. Any item or display from "Creepy Crawlies" project
70. Any item or display from "What's Bugging You?" project
71. Any item or display from "Dragons, Houses, and Other Flies" project
72. Insect collection containing 25 insects, including at least 5 orders
73. Exhibit of life stages of an insect, from egg to adult
74. Exhibit showing control of management of insects
75. Insect collection mounted and named including order and family, 50 insects involving 10 orders.
76. Exhibit of the special activities of one insect.
77. Insect collection preserved in plastic, named including order and family, 50 insects involving 10 orders.
78. Special collection of insects by economic importance, habitat, order, immature insects, foreign insects, etc.
79. Apiary exhibit showing honey, beeswax or home crafted hives and/or supers.
80. Insect collection mounted and named to family and order, 75 insects involving 10 orders.