

DEPARTMENT 24J MECHANICAL PROJECTS

- PLEASE NOTE -

THIS IS A CONFERENCE JUDGED DEPARTMENT ON MONDAY

All exhibitors are required to follow Junior Division Rules

No entries accepted after entry deadline

Premiums: \$2.00 \$1.75 \$1.50 \$1.25

Reminders:

- **All posters MUST be on 14" x 22" tag board**
- **All posters Must have a hole punched in the 2 top corners for hanging at the fair**
- **ALL Scrapbooks Must Have At Least 10 Pages**

Class A --- Tractor Maintenance

Lots:

1. Exhibit panel of worn parts caused by poor tractor maintenance, collected by member, with explanation of cause & how it could have been prevented
2. Poster telling story of tractor or machinery safety
3. Tractor project book with completed lessons and written story of member's tractor project
4. Poster displaying tractor service and cost records
5. Display board showing different kinds of nuts, screws, washers, and other fasteners used on farm machinery, properly labeled (mounted on a 14" x 22" plywood or pressed board)
6. Any Other Exhibit relating to this class, not listed

Class B --- Small Engines

Grade Grade Grade (Grades determined as of
3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

- | | | | |
|----|----|----|--|
| 1 | 21 | 41 | Exhibit of small 4-cycle engine parts, identifying parts |
| 2 | 22 | 42 | Poster showing steps in small engine service job |
| 3 | 23 | 43 | Poster showing correct steps in preparing a small engine for off-season storage |
| 4 | 24 | 44 | A small engine safety poster |
| 5 | 25 | 45 | Panel showing worn or faulty engine parts with a statement as to cause and prevention |
| 6 | 26 | 46 | Poster showing the event in a 4-cycle engine with brief explanation |
| 7 | 27 | 47 | Poster listing preventative maintenance for a 4-cycle engine |
| 8 | 28 | 48 | Poster showing event in a two-cycle engine with a brief explanation |
| 9 | 29 | 49 | Panel exhibit of carburetor parts with explanation of function of parts, float type of diaphragm |
| 10 | 30 | 50 | Poster listing preventive maintenance measures recommended for two-cycle engines |
| 11 | 31 | 51 | Safety poster on chain saw use, outboard motor, motorcycle or motorbike |
| 12 | 32 | 52 | Any Other Exhibit relating to this class,
not listed |

Class C --- Bicycles

Grade Grade Grade (Grades determined as of
3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

- | | | | |
|---|----|----|---|
| 1 | 11 | 21 | Safety poster on tag board showing one
or more safety hazards and corrective
measures |
| 2 | 12 | 22 | Poster showing proper care, maintenance, and use of bicycle parts |
| 3 | 13 | 23 | Poster on identification of bicycles parts |
| 4 | 14 | 24 | Educational poster or exhibit on types of bicycles, past or present |
| 5 | 15 | 25 | Any Other Exhibit relating to this class,
not listed |

Class D --- Aerospace

Rockets must NOT contain propellants.

(Grades determined as of Jan. 1st of this year)

Lots:

Grades 3 - 5

1. Single stage rocket (3 or 4 fin model)
2. Multi-stage rocket (2 or 3 stage)
3. Educational poster of the basic parts of a rocket
4. Any Other Exhibit relating to this class, not listed

Grades 6 - 8

10. Multi-stage rocket (2 or 3 stage)
11. Exotic design rocket

12. Poster on history of flight
13. Poster on principles of flight
14. Any Other Exhibit relating to this class, not listed **Grades 9 and Up**
20. Multi-stage rocket (2 or 3 stage)
21. Exotic design rocket
22. Poster on aircraft propulsion
23. Poster on structure and instruments
24. Poster on navigation and weather
25. Poster on air safety
26. Any Other Exhibit relating to this class, not listed

Class E --- Models

Grade Grade Grade (Grades determined as of
3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

- | | | | |
|----|----|----|--|
| 1 | 20 | 40 | Model car, most pieces snap together |
| 2 | 21 | 41 | Model car, most pieces glued together |
| 3 | 22 | 42 | Model truck, most pieces snap together |
| 4 | 23 | 43 | Model truck, most pieces glued together |
| 5 | 24 | 44 | Model train, most pieces snap together |
| 6 | 25 | 45 | Model train, most pieces glued together |
| 7 | 26 | 46 | Model tank, most pieces snap together |
| 8 | 27 | 47 | Model tank, most pieces glued together |
| 9 | 28 | 48 | Model airplane, most pieces snap together |
| 10 | 29 | 49 | Model airplane, most pieces glued together |
| 11 | 30 | 50 | Model ships or boats, most pieces snap together |
| 12 | 31 | 51 | Model ships or boats, most pieces glued together |
| 13 | 32 | 52 | Model motorcycle, most pieces snap together |
| 14 | 33 | 53 | Model motorcycle, most pieces glued together |
| 15 | 34 | 54 | Any other model, except rockets, most pieces snap together, NOT already listed |
| 16 | 35 | 55 | Any other model, except rockets, most pieces glued together, not listed |

Class F --- Legos / K-Nex / Similar Media

Grade Grade Grade (Grades determined as of
3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

- | | | | |
|---|----|----|---|
| 1 | 20 | 40 | Vehicle (car, truck, etc) from kit |
| 2 | 21 | 41 | Vehicle (car, truck, etc) original design |
| 3 | 22 | 42 | Aerospace (airplane, rocket, etc) from kit |
| 4 | 23 | 43 | Aerospace (airplane, rocket, etc) original design |
| 5 | 24 | 44 | Aquatic (boat, submarine, |

			etc) from kit	
6	25	45	Aquatic (boat, submarine, etc)	original design
7	26	46	Building from kit	
8	27	47	Building from original design	
9	28	48	Dinosaur from kit	
10	29	49	Dinosaur from original design	
11	30	50	Train from kit	
12	31	51	Train from original design	
13	32	52	Robotics from kit	
14	33	53	Robotics from original design	
15	34	54	Any other item, from kit, not listed	
16	35	55	Any other item, from original, not listed	

Class G --- Snowmobiles

Grade Grade Grade (Grades determined as of
3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

1	20	40	Snowmobile safety poster
2	21	41	Exhibit of snowmobile parts identifying parts
3	22	42	Panel exhibit of faulty parts
4	23	43	Picture sequence story, using black & white or color photographs, mounted on (12"x14") tag board illustrating one of the following: -Trail maintenance and development -Trail ride activity - Maintenance of own snowmobile
5	24	44	Emergency snowmobile's safety kit
6	25	45	Emergency snowmobile maintenance kit
7	26	46	Any other item related to this class, not listed

Class H --- Handyman

Grade Grade Grade (Grades determined as of
3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

1	10	20	Repaired, refinished or constructed article to use in workshop (Attach statement of work done & method used)
2	11	21	Repaired, refinished or constructed article for sport or recreational purpose (Attach statement of work done & method used)
3	12	22	Any other item related to this class, not listed

Class I --- Dioramas

- Dioramas will be limited to a maximum size of 3 foot X 4 foot
- The largest scale to be used is 1/12 scale (1 inch equals 1 foot)
- Each exhibit must have the following information (on a 3"X5" card or on an 8½ X 11 sheet of paper - attached securely to the diorama)
 - Title of this diorama
 - Statement of the level of difficulty in building this diorama - using the terms defined below -Scratch Built, Custom Built, or Kit Bashed
 - Statement of what kind of help was received while building the diorama
 - Amount of time it took to build this diorama
 - Specify any customized pieces and whether those pieces were purchased or customized by the exhibitor
 - Explain the activity in your diorama
- Definitions:
 - Scratch Built = buying or making individual parts and building a scale model
 - Custom Built = starting with a kit or a model and completely changing or modifying its appearance
 - Kit Bashed = taking two or more kits and combining them into one scale model

3-5 6-8 9 & Up Jan. 1st of this year)

Lots:

1	40	70	Diorama of agricultural Items - from kit (tractors, farm equipment, farm buildings, may or
---	----	----	--

- may not include houses, etc.)
- 2 41 71 Diorama of agricultural items - from scratch built, custom built or kit-bashed (tractors, farm equipment, farm buildings, may or may not include houses, etc.)
- 3 42 72 Diorama of aquatic items - from kit (ships, boats, submarines, etc.)
- 4 43 73 Diorama of aquatic items - from scratch built, custom built or kit - bashed (ships, submarines, etc.)
- 5 44 74 Diorama of highway transportation items - from kit (semis, trucks, cars, motorcycles, etc.)
- 6 45 75 Diorama of highway transportation items - from scratch built, custom built or kit - bashed (semis, trucks, cars, motorcycles, etc.)
- 7 46 76 Diorama of railroad items from kit (engines, railroad cars, railroad equipment, etc.)
- 8 47 77 Diorama of railroad items from scratch built, custom built or kit - bashed (engines, railroad cars, railroad equipment, etc.)
- 9 48 78 Diorama of military items - from kit (tanks, trucks, cannons, personal vehicles, etc.)
- 10 49 79 Diorama of military items – from scratch built, custom built or kit-bashed (tanks, trucks, cannons, personal vehicles, etc.)
- 11 50 80 Diorama of non-military aircraft items - from kit (planes, helicopters, etc)
- 12 51 81 Diorama of non-military aircraft items - from scratch built, custom built or kit -bashed (planes, helicopters, etc)
- 13 52 82 Diorama of miniature dwelling(s) - from kit (doll houses, furnishings, etc)
- 14 53 83 Diorama of miniature dwelling(s) - from scratch built, custom built or kit – bashed (doll houses, furnishings, etc.)
- 15 54 84 Diorama of any other scale model items - from kit
- 16 55 85 Diorama of any other scale model items - from scratch built, custom built or kit- bashed