

DEPARTMENT 124 – MECHANICAL PROJECTS

1. Individual Judging will take place Wednesday from 12:00-6:00 pm.
2. No more than **3** entries per exhibitor per class.
3. Poster size not to exceed 22" x 28". Attach entry tag to upper right corner.
4. Displays and panels not to exceed 48" x 36".

Class A – Tractor

Premiums: \$3 - \$2.75 - \$2.50 - \$2.25

Tractor 1

Lot Numbers

- 1 Poster or display telling story of tractor or machinery safety
- 2 Display panel showing different kinds of nuts, bolts, screws, and rivets used on tractors, properly labeled (mount should be on plywood or pressed board).
- 3 Any other exhibit not listed above

Tractor 2

Lot Numbers

- 4 Display panel of worn parts caused by poor tractor maintenance collected by member with an explanation of cause and how it could have been prevented (mount should be on plywood or pressed board)
- 5 Poster displaying tractor service and cost records
- 6 Any other exhibit not listed above

Class B – Small Engines

Grades 3-5

Premiums: \$2 - \$1.75 - \$1.50 - \$1.25

Lot Numbers

- 1 Poster or display of check list used anytime before operating a small engine
- 2 Display panel of small engine parts with identification of parts (mount on plywood or pressed board)
- 3 Poster or display of basic tools used for maintenance and repair of small engines with an explanation of their proper use
- 4 Small engine safety poster
- 5 Any other exhibit not listed above

Grades 6-8

Premiums: \$2.50 - \$2.25 - \$2 - \$1.75

Lot Numbers

- 6 Poster or display showing the events in a four-cycle or two-cycle engine with a brief explanation
- 7 Poster showing correct steps in preparing a small engine for off season storage
- 8 Display panel of carburetor parts with explanation of function of parts: float or diaphragm type (mount on plywood or pressed board)
- 9 Poster on lawn mower safety
- 10 Any other exhibit not listed above

Grades 9 & Up

Premiums: \$3 - \$2.75 - \$2.50 - \$2.25

Lot Numbers

- 11 Poster or display of specialized diagnostic tools used in small engine maintenance and repair with an explanation of their proper use
- 12 Poster or display demonstrating the proper procedures for tearing down and reassembling a small engine: air and fuel system, or electrical system, or engine base
- 13 Display panel showing worn or faulty engine parts with an explanation of the cause and prevention of the problem (mounted on plywood or pressed board)
- 14 Safety poster on: chainsaw use, outboard motors, motorcycles, motor bikes, or other power tools or vehicles using small engines
- 15 Any other exhibit not listed above

Class C – Handyman (Maintenance and Repair)

Attach a statement of work done and method used. All exhibits must include a "before" and "after" picture of exhibit.

Premiums: \$2.50 - \$2.25 - \$2 - \$1.75

Grades 3-5

Lot Numbers

- 1 Repaired or refinished article for use in the workshop
- 2 Repaired or refinished article for sport or recreational purposes
- 3 Repaired or refinished article for use in the home
- 4 Repaired or refinished article for use out of doors
- 5 Poster or display of repaired or refinished item which can not be exhibited due to size or safety

Grades 6 and Up

Lot Numbers

- 6 Repaired or refinished article for use in the workshop
- 7 Repaired or refinished article for sport or recreational purposes
- 8 Repaired or refinished article for use in the home

- 9 Repaired or refinished article for use out of doors
- 10 Poster or display of repaired or refinished item which can not be exhibited due to size or safety

Class D – Aerospace

On model rocketry, the recovery system must be in place. No engines in rockets.

Premiums: \$2.50 - \$2.25 - \$2 - \$1.75

Grades 3-5

Lot Numbers

- 1 Small model of home made airplane using balsa wood, paper, cardboard, etc., not made to fly (no kits permitted)
- 2 Small model of home made airplane using balsa wood, paper, cardboard, etc., made to fly (no kits permitted)
- 3 Small model of home made airplane made from kit, not made to fly
- 4 Small model of home made airplane made from kit, made to fly, 18" in length or less
- 5 Large model of home made airplane made from kit, not made to fly, over 18" in length
- 6 Large model of home made airplane made from kit, made to fly, over 18" in length
- 7 Educational poster on basic parts of airplane
- 8 Single stage rocket (3 or 4 fin model)
- 9 Multi-stage rocket (2 or 3 stage)
- 10 Exotic design rocket, not made to fly
- 11 Educational poster on basic parts of a rocket
- 12 Any other exhibit not listed above

Grades 6-8

Lot Numbers

- 13 Small model of home made airplane using balsa wood, paper, cardboard, etc., not made to fly (no kits permitted)
- 14 Small model of home made airplane using balsa wood, paper, cardboard, etc., made to fly (no kits permitted)
- 15 Small model of home made airplane made from kit, not made to fly
- 16 Small model of home made airplane made from kit, made to fly, 18" in length or less
- 17 Large model of home made airplane made from kit, not made to fly, over 18" in length
- 18 Large model of home made airplane made from kit, made to fly, over 18" in length
- 19 Educational poster on basic parts of airplane
- 20 Single stage rocket (3 or 4 fin model)
- 21 Multi-stage rocket (2 or 3 stage)
- 22 Exotic design rocket, not made to fly
- 23 Educational poster on basic parts of a rocket
- 24 Any other exhibit not listed above

Grades 9 & Up

Lot Numbers

- 25 Small model of home made airplane using balsa wood, paper, cardboard, etc., not made to fly (no kits permitted)
- 26 Small model of home made airplane using balsa wood, paper, cardboard, etc., made to fly (no kits permitted)
- 27 Small model of home made airplane made from kit, not made to fly
- 28 Small model of home made airplane made from kit, made to fly, 18" in length or less
- 29 Large model of home made airplane made from kit, not made to fly, over 18" in length
- 30 Large model of home made airplane made from kit, made to fly, over 18" in length
- 31 Educational poster on basic parts of airplane
- 32 Single stage rocket (3 or 4 fin model)
- 33 Multi-stage rocket (2 or 3 stage)
- 34 Exotic design rocket, not made to fly
- 35 Educational poster on basic parts of a rocket
- 36 Any other exhibit not listed above

Class E – Scale Models

All models should be properly assembled with glue or snap-fitted approach.

A 3" x 5" card must be attached explaining what steps were taken to assemble the model.

Models should be painted and may have decals. Mounting on a base or platform, etc. is also encouraged.

Premiums: \$2.50 - \$2.25 - \$2 - \$1.75

Grades 3-5

Lot Numbers

- 1 Model from a kit (snap-fit model)
- 2 Model from a kit (glued)
- 3 Original model
- 4 Educational poster related to the scale model project

Grades 6-8

Lot Numbers

- 5 Model from a kit (glued)
- 6 Original model
- 7 Educational poster related to the scale model project

Grades 9 & Up

Attach a 3" x 5" card to exhibit documenting how full sized car, boat, etc. was used, where used, time line, etc.

Lot Numbers

- 8 Model from a kit (glued)
- 9 Panorama display – model placed in a setting
- 10 Original model