

JUNIOR FAIR MECHANICAL PROJECTS

Department 24 – Superintendent – Ed Zahn – 920-682-8433

1. Judging Day (Individual Conference Judging) – **Monday, August 22**, as follows: 10am to 2pm, and 2:30pm to 6pm.
2. Release Day – **Sunday, August 28**, between **6:30pm and 8:30pm**.
3. No changes will be allowed after registration forms are submitted.
4. All posters must be 14"x22".
5. Limit of four (4) entries per Exhibitor.
6. Display areas can be no longer than 2'x4' (example: miniature farm display).
7. All "any other" entries must be named on registration form.

CLASS A: TRACTOR

Premiums for Lot Numbers 100-130 are as Follows:

Blue Ribbon - \$2.50 Red Ribbon - \$2.25 White Ribbon - \$2.00 Pink Ribbon - \$1.50

Lot Numbers:

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|---|---|
| 100. Tractor or farm machinery safety poster. | 106. Chart of poster with information on proper tractor care and adjustments as they relate to good tractor operation (example: spark plugs, batteries, tires, air cleaners, carburetors, etc). |
| 101. Mounted exhibit of defective engine parts, explaining the cause of defect and the suggested method of prevention or remedy. | 107. Display tractor records and operating costs. |
| 102. Display board showing different kinds of nuts, bolts, screws, rivets, and other fasteners used on farm machinery, properly labeled. | 108. Chart following the transmission of power in one piece of machinery. Sketch out and further explain where and how the power goes to reach the job. |
| 103. Periodic lubrication and maintenance chart. | 109. Demonstrate outline for machine adjustment. Follow through on one piece of machinery. |
| 104. Display panel of damaged parts caused by poor tractor maintenance, collected by members with explanation of cause and how it can be prevented. | 110. Poster displaying farm machinery management records. |
| 105. Exhibit, display, or chart on tractor lubrication. Display might include type of lubricants, how to lubricate properly, what lubricant to use in a specific location, and how often the job needs doing. | 111. Any other exhibit in tractor maintenance not listed above. |
| | 112. Restored toy tractor, plus booklet on work done. |
| | 113. Restored pedal tractor, plus booklet on work done. |

CLASS B: AUTOMATIVE – Grades 3-5

Appropriate card should accompany the exhibit to explain it

Lot Numbers:

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| 114. Automotive Safety Hazards Poster – this exhibit must include a map and at least 6 photographs showing safety hazards in your community. | 118. Exhibit showing marked crosswalks – toys, miniatures, and models can be used here also. |
| 115. Illustrated poster showing proper car keeping procedures. | 119. Exhibit of dull versus protected auto finish. Use pieces of fenders or hoods. |
| 116. Exhibit showing blind driveways – use model buildings, shrubs, cars, etc. | 120. Exhibit of soiled versus clean car interiors. Use a discarded car cushion. Clean one side, leave the other side as is. |
| 117. Exhibit showing obstructed intersections – a miniature showing plan laid out on a board. | 121. Poster of types of signs, signals, and markings in Wisconsin. |
| | 122. Any other exhibit not listed above. |

Grades 6-13

Appropriate card should accompany the exhibit to explain it

Lot Numbers:

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| 123. Exhibit showing neglected versus serviced oil filtered caps and crankcase breather filters. | 127. Illustrated poster describing what to look for in buying a used car. |
| 124. Exhibit of worn versus safe fan belts. | 128. Miniature scale model display showing stopping distances required for different road conditions at different mile per hour (mph) ranges. |
| 125. Exhibit of worn brake linings and damaged brake drum versus new linings and smooth drums. | 129. Poster with information concerning car costs – possible gasoline consumption and oil, tire service records seasonal service, etc. |
| 126. Display or drawing showing any of these following items (2'x4' display only allowed).
a) Carburetor System b) Ignition System
c) Four-Stroke Cycle of Motor d) Cooling System | 130. Any other automotive exhibit not listed above. |

Junior Fair Mechanical Projects

Department 24

CLASS C: SMALL ENGINE EXHIBITS

Grades 3-5 Crank It Up

Premiums for Lot Numbers 131-135 are as Follows:

Blue Ribbon - \$1.75 Red Ribbon - \$1.50 White Ribbon - \$1.25 Pink Ribbon - \$1.00

Lot Numbers:

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| 131. Panel exhibit of small engine parts with identification of parts (2'x4' display only allowed). | 133. Poster showing correct steps in preparing a small engine for off-season storage. |
| 132. Poster illustrating steps in a small engine service job. | 134. Small engine safety poster. |
| | 135. Poster showing the events in a four-cycle engine with a brief explanation. |

Grades 6-8 Warm It Up

Premiums for Lot Numbers 136-184:

Blue Ribbon - \$2.00 Red Ribbon - \$1.75 White Ribbon - \$1.50 Pink Ribbon - \$1.25

Lot Numbers:

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| 136. Poster showing events in a two-cycle engine with a brief explanation. | 138. Poster listing preventative maintenance measures recommended for two-cycle engine. |
| 137. Panel exhibit of carburetor parts with an explanation of function of parts. Float-type or diaphragm-type. | 139. Safety poster on chain saw use or outboard motorcycles or motorbikes. |

Grades 9-13 Tune It Up

Lot Numbers:

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| 140. Poster showing events in a two-cycle engine with a brief explanation. | 141. Panel exhibit of carburetor parts with an explanation of function of parts. Float-type or diaphragm-type. |
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CLASS D: BICYCLE

Lot Numbers:

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| 142. Safety Poster – showing one or more safety hazards and corrective measures. | 145. Scrapbook showing your biking activities. |
| 143. Poster on proper care, maintenance, or use of a bicycle. | 146. A study project on the types of bicycles, past and present. |
| 144. Display of bicycle parts – indicate functions of these parts. | 147. Poster of traffic control signs. |
| | 148. Any other bicycle exhibit not listed above. |

CLASS E: AEROSPACE Grades 3-5

Lot Numbers:

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| 149. Poster showing parts of a model airplane. | 153. Small model of homemade airplane made with no kit but with balsa wood, paper, cardboard, etc., made to fly. |
| 150. A model airplane propelled by a rubber band (include flight pattern). | 154. Small model of homemade airplane, made from kit, not made to fly. |
| 151. A model airplane propelled by a gas engine (include flight pattern). | 155. Small model of homemade airplane, made from kit, made to fly. |
| 152. Small model of homemade airplane made with no kit, but with balsa wood, paper, cardboard, etc., not made to fly. | 156. Any other model airplane project not mentioned above. |

Grades 6-8

Lot Numbers:

- 157. Poster showing parts of a rocket engine and relation to thrust-time curve and flight trajectory.
- 158. A non-metallic model rocket the Exhibitor has built and flown (include a flight log of recent flight).
- 159. Model of rocket, not kit.
- 160. Small model of rocket with explanation of parts, finishing involved, launching system, tracking results, etc.
- 161. Poster of basic parts of a rocket with their functions.
- 162. Any other model rocketry projects not mentioned above.
- 163. A non-metallic model rocket kit.

Grades 9-13

Lot Numbers:

- 164. Poster on history of flight.
- 165. Poster on basic parts of an airplane.
- 166. Poster on aircraft propulsion.
- 167. Booklet on instruments, navigation, weather charts, regulations, safety – identify and explain.
- 168. Scrapbook of any phase of flying.
- 169. Any other aerospace project not mentioned above.

CLASS F: SNOWMOBILES

Lot Numbers:

- 170. Poster on safety rules for snowmobiles.
- 171. Poster on maintenance of snowmobiles.
- 172. Notebook on history of snowmobiles.
- 173. A homemade snowmobile survival kit.
- 174. Poster identifying snowmobile parts and their function.
- 175. Panel with exhibit and identification of snowmobile parts with possible worn parts and proper repair methods (2'x4' display maximum).
- 176. Poster or notebook of proper snowmobile gear.
- 177. Poster on snowmobile ethics.
- 178. Any other exhibit for snowmobiling not mentioned above.

CLASS G: SCALE MODELS

- 1. No snap together models. The judge looks for a model that was a challenge, glue together, decals, etc.

Lot Numbers:

- 179. Car.
- 180. Truck or Van.
- 181. Boat or Ship.
- 182. Aircraft.
- 183. Military Equipment.
- 184. Any other item NOT listed above.