

AEROSPACE (ROCKETS)

State Fair Entry: Each county would be permitted to send one rocket, remote control aircraft, or drone and one poster/display board in each grade category (3-5, 6-8, and 9-12). Thus, each county could send a maximum of six exhibits to the state fair, 3 rockets, remote control aircrafts, or drones and 3 poster/display boards. No "Ready to Fly" or E2X rockets are acceptable in the 4-H Aerospace project.

References: BU-6843 Aerospace 2 Grades 3-5
BU-6844 Aerospace 3 Grades 6-8
BU-6845 Aerospace 4 Grades 9-12

Exhibit: One rocket, remote control aircraft, or drone. All wood and all paper must be painted. No "Ready to Fly" or E2X rockets are acceptable in the 4-H Aerospace project. Participation in the Rocket Shoot is optional for all exhibitors in the Rocket Project. Display rocket without engine or igniter. 4-H'ers will exhibit their rocket in the year he or she is enrolled. State Fair entry will be judged on static display only. Launch pads are optional.

Exhibit will be judged on the following criteria:

Aerodynamics, Construction (Structural & Decorative), Recovery system, Workmanship, Finish, and Use of Color

All posters, notebooks, and display boards must include a reference list indicating where information was obtained, giving credit to the original author, to complete the 4-H member's exhibit. This reference list should/might include web site links, people and professionals interviewed, books, magazines, etc. It is recommended this reference list be attached to the back of a poster or display board, be the last page of a notebook, or included as part of the display visible to the public. A judge is not to discredit an exhibit for the manner in which references are listed.

Rockets may be exhibited with a base, but launch pads are not permitted. All rockets must weigh less than 3.3 pounds and considered an amateur rocket according to FAA regulations.

Remote control aircraft or drones may be constructed from a kit or purchased ready-to-fly.

Level: (Grades 3-5)

Exhibit one of the following:

1. A hand-built rocket of your choice; Estes Skill Level 1, 2, or comparable difficulty.
2. A Poster or display board on any topic in the manual (i.e., construct a paper airplane with a poster board explaining why you designed it the way you did)
3. Cluster engine rockets and rockets that take an engine D or above are not permitted in this level.
4. Remote control aircraft or drone of your choice that is age/grade appropriate and compliant with FFA regulations, federal and state laws, and local ordinances. This exhibit choice is to include a notebook or poster including how the aircraft/drone was used and aerospace skills learned. Displaying the aircraft or drone is optional.

5. An Action Demonstration

Level: (Grades 6-8)

Exhibit one of the following:

1. Rocket or other aerodynamic object of your choice, Estes Skill Level 2, 3 or comparable difficulty.
2. Poster or display board on any topic in the manual (i.e., glider plane (page 18) with poster explaining design)
3. Cluster engine rockets and rockets that take an engine E or above are not permitted in this level.
4. Remote control aircraft or drone of your choice that is age/grade appropriate and compliant with FFA regulations, federal and state laws, and local ordinances. This exhibit choice is to include a notebook or poster including how the aircraft/drone was used and aerospace skills learned. Displaying the aircraft or drone is optional.
5. An Action Demonstration

Level: (Grades 9-12)

Exhibit one of the following:

1. Rocket of your choice, Estes Skills Level 3 or above, a Box kite or other aerodynamic object of your choice, which illustrates principles of flight.
2. Poster or display board on any topic in the manual (i.e., box kite (page 20) with poster explanation)
3. Rockets that take an engine G or above are not permitted.
4. Remote control aircraft or drone of your choice that is age/grade appropriate and compliant with FFA regulations, federal and state laws, and local ordinances. This exhibit choice is to include a notebook or poster including how the aircraft/drone was used and aerospace skills learned. Displaying the aircraft or drone is optional.
5. An Action Demonstration