

Oregon 4-H Youth County/State Fair
Aerospace- Rocketry Project Description

Name:	County:
Class Number: 851_____010	Class Name: Aerospace- Rocketry
Project Stage: (circle one) 2 3 4	(circle one) Junior Intermediate Senior
Grade:	Years in this project area:

An exhibit of a rocket made by the member from a rocket kit appropriate for the member's stated Aerospace Adventures project Stage (2,3,4) and a Rocketry Engineering Journal. Both the display and journal should be labeled with the exhibitor's name, county and class number.

Provide the information specified below a Rocketry Engineering Journal. Include the Journal with your Rocketry project. Answers can be hand written or typed on a separate sheet, audio (mp3) or video. Refer to the fair book and the Aerospace-Rocketry Project Evaluation Sheet for information on the requirements of the display and journal.

Refer to the rocket manufacture's technical specifications for some of the information requested. 1. Name/Type of Rocket Displayed, 2. Skill Level: E2X or 1, 3. Length, 4. Diameter, 5. Estimated weight, 6. Manufacture's listed maximum altitude, 7. Manufacture's recommended first flight engine, 8. Manufacture's recommended engines (not including first flight engine), 9. What is the appropriate engine size for your rocket and your level of experience? For each engine size provide the minimum launch site size.

Build Report in Rocketry Engineering Journal

- Cost of kit and components and number of hours required for construction included.
- Rocket kit manufacture's construction and use information included.
- Additional information which may be included: stock kit info; power: single-stage, multi-stage, cluster; the fuselage: single tube; glider: rear engine, front engine or canard; engine information; engine code, label color, type of recovery system and justification.

Launch & Flight Report- Optional in the Rocket Engineering Journal for Stage 2. Required for Stage 3 and Stage 4 exhibits

Create a chart similar to this example to report on all of your rocket's flights.

First flight engine used	Minimum Site Dimensions In feet	Estimated Altitude Achieved	Second flight engine used	Minimum Site Dimensions In feet	Estimated Altitude Achieved

Include the specific location of each launch and how you determined it meet the minimum launch site size for the engine used. Additional information to include: Number of times successfully launched; kind of launch pad used; tracking method used; observer's distance from the rocket; angle achieved and altitude achieved; any special problems before, during, or after launching; what was done to overcome problems.

Stage 4 exhibits required: Explanation and evidence of custom fin design, testing and redesign and re-testing must be included in the journal. Digital pictures may be used to document and communicate fin designs and launch results.