
DEPARTMENT H AEROSPACE

DIVISION 850 AEROSPACE

Rocketry projects will be interview judged on Wednesday, **July 19**. Contact the Extension Office for a schedule of times for rocketry judging. This is the 4-Hers responsibility.

Rockets must be supported substantially to protect the rocket from breakage. Rockets are to be mounted on a base that has dimensions equal or less than 12" x 12" and the base should be 3/4" thick. No metal bases. If the rocket fins extend beyond the edges of the required base (12" x 12"), then construct a base that is large enough to protect the fins. The base size is dictated by the size of the rocket fins. The rockets must be mounted vertically. Please do not attach sideboards or backdrops to the displays. In addition a used engine or length of dowel pin is to be glued and/or screwed into the board and extended up into the rockets engine mount to give added stability. Rockets must be equipped as prepared for launching, with wadding and parachute or other recovery system. Rockets entered with live engines, wrong base size or sideboards will be disqualified. A report, protected in a clear plastic cover, must include: 1) rocket specification, 2) a flight record for each launching (weather, distance, flight height), 3) number of launchings, and 4) flight pictures. The flight record should describe engine used, what the rocket did in flight and recovery success. Points will not be deducted for launching, flight or recovery failures described. This includes any damage that may show on the rocket. Complete factory assembled rockets, will not be accepted for judging. Judging is based upon display appearance, rocket appearance, workmanship, design or capabilities for flight, and number of times launched. Three launches are required to earn the 25 launch points given on the score sheets. For scoring, only actual launches count, misfires will not count towards one of the required three launches.

For self-designed rockets only, please include a digital recorded copy of one flight. In the documentation please include a description of stability testing before the rocket was flown. 4-H Rocket Project levels are not intended to correspond to National Association of Rocketry model rocket difficulty ratings or levels.

910. Unlaunched Rocket.

920. Skill Level 1 Rocket.

LIFT OFF – UNIT 2

1. + Rocket: Any Skill Level 2 Rocket with wooden fins painted by hand or air brush. Score sheet SF92.

2. + Display: Display exemplifying one of the principles learned in the Lift Off project. Examples include: display of rocket parts and purpose, interview of someone in the aerospace field, or kite terminology. Display can be any size up to 28" by 22". Score sheet SF93.

3. + Rocket: Any Skill Level 2 Rocket with wooden fins painted using commercial application example commercial spray paint. Score sheet SF92.

REACHING NEW HEIGHTS - UNIT 3

4. + Rocket: Any Skill Level 3 Rocket with wooden fins painted by hand or air brush. Score sheet SF92.

5. + Display: Display exemplifying one of the principles learned in the Reaching New Heights Project. Examples include: airplane instrumentation, kite flying, or radio-controlled planes. Display can be any

size up to 28" by 22". Score sheet SF93.

6. + Rocket: Any Skill Level 3 Rocket with wooden fins painted using commercial application, example; commercial spray paint. Score sheet SF92.

PILOT IN COMMAND - UNIT 4

7. + Rocket: Any Skill Level 4 Rocket with wooden fins or any self- designed rocket. Score sheet SF92.

8. + Display: Display exemplifying one of the principles learned in the Pilot in Command Project. Examples include: flying lessons, or careers in aerospace. Display can be any size up to 28" by 22". Score sheet SF93.

CAREERS

20. + Careers Interview (SF239) – Interview someone who is working in the field of aerospace and research that career. Interviews can either be written or in a multimedia format (CD/DVD). Written interviews should be in a notebook. Written reports should be 3 to 5 pages, double spaced, 12 point font, and 1" margins. Multimedia reports should be between 3 to 5 minutes in length.