

Rocketry Guidelines

Age Groups:

Beginner: Ages 7-11

Junior: Ages 12-15

Senior: 16-19

Notes:

- At this time, Rocketry is not judged by age level, but by year in the project. However, it is expected that with each progressing year, the exhibitor shows an increase in knowledge and skill based on age.
- Rockets are not to exceed 3 feet in length.
- Only one entry is allowed by an exhibitor per year.
- Exhibitors should learn how to construct rockets, becoming familiar with launching a rocket and successfully recovering it.
- Exhibitors should learn what makes a rocket fly and how to predict where it will land.
- **All rockets need to be displayed on a stand.**
- Exhibit should be smooth, neat, and uniform. Make sure balsa and/or plastic are sanded and have no rough edges. Balsa should be sealed for a smooth paint job.
- Paints should be evenly applied so there are no runs or streaks. If decals are used, mount them straight.
- Kits are allowed.

First Year – Skill Level 1

- Make a rocket at skill level 1.
 - Learn correct construction techniques.
 - Learn about the engine sizes for your rocket.
 - Learn about recovery systems for your rocket.
 - Learn launching safety rules.
 - Learn to check flying conditions.
 - Learn to check launch site.

Second Year – Skill Level 2

- Make a rocket at skill level 2.
 - Try experimenting with a personal paint design. Use of decals optional, try making your own.
 - Learn about the properties of air.
 - Learn what thrust and drag are.
 - Learn about weight limits.
 - Learn about two-stage rockets and how they work.

Third Year – Skill Level 3

- Make a rocket at skill level 3.
 - Draw up plans and make a rocket of your own design. If you draw your plans, bring them with your rocket at time of judging.
 - Learn how to test for stability.
 - Learn about launch targets and angle.
 - Learn about real rockets and their purposes.

Fourth Year – Skill Level 4

- Make and display a model rocket of your own personal design. Rockets should be made from cardboard, plastic, and balsa wood pieces. Make a persona launch pad. Bring your drawn plans to judging.
 - Know what the rocket can do.
 - Did it perform as expected.
 - Did the launch pad work.