



# Colorado Springs Rocket Society

## Beginner Classes: The Basics of Model Rocketry

CLASSES START IN OCTOBER 2016

Open to Youth Ages 8-18 (20 Students Maximum)  
And to School Teachers and/or Youth Mentors (10 Maximum)



The Colorado Springs Rocket Society (COSROCS) is gearing up for the 2016-2017 Beginner Model Rocketry Classes. COSROCS is an all volunteer, non-profit, community educational and service provider organization.

OPEN ENROLLMENT STARTS: September 1, 2016

ENROLLMENT ENDS: October 28, 2016. Class space is limited.

CONTACT: Les and Deanna Mann (COSROCS Members & Club Librarian) for more information at [L\\_D4HRocketry@q.com](mailto:L_D4HRocketry@q.com), or go to <http://www.cosrocs.org/> for more information about the club.

CLASS SCHEDULE: **Class 1:** Two dates to choose from in October: Saturday 15<sup>th</sup> or the 29<sup>th</sup>  
**Classes 2-8:** 1<sup>st</sup> Saturdays of every month—Starting Nov. 5<sup>th</sup> and ending May 6, 2017  
**All Classes:** 1:00-4:00 p.m. (3 Hours Total: ~1 ½ hrs lesson, ~1 ½ hrs build)  
**Weather Makeup Days:** Scheduled for the Sunday immediately following the 1<sup>st</sup> Saturday for the months of November-March

CLASS LOCATION: **Fire Station #20. Address: 6755 Rangewood Dr., COS 80918**  
(NE corner of Rangewood Drive and Dublin Blvd.)

CLASS DESCRIPTION: The COSROCS Beginner Model Rocketry Class is designed for students with limited to no experience in model rocketry. Teachers and youth mentors are encouraged to participate. You will learn basic construction skills building low- to mid-power, balsa-fin model rockets—skill levels 1-3—based on your individual abilities. Students will learn about the history of rocketry, the science and stability factors of a rocket, how black-powder motors work, proper flight preparations, range and launch safety, and the National Association of Rocketry (NAR) Safety Codes.

### CLASS LESSON TOPICS:

- Class #1 – Oct. 15<sup>th</sup> or 29<sup>th</sup>, 2016: Intro to Model Rocketry, NAR Safety Codes, What's Needed, etc.
- Class #2 – Nov. 5, 2016: Basic Model Rocket Components, Construction & Techniques
- Class #3 – Dec. 3, 2016: Rocket History, Model Rocketry History, Newton's Three Laws of Motion
- Class #4 – Jan. 7, 2017: Flight Stability, Center of Gravity, Center of Pressure
- Class #5 – Feb. 4, 2017: Launch & Range Safety, Launch Techniques, Tracking
- Class #6 – Mar. 4, 2017: Black Powder & Composite Rocket Motors, Rocket in Flight
- Class #7 – Apr. 1, 2017: Recovery Systems, How to Make a Simple Parachute and Streamer
- Class #8 – May 6, 2017: Finishing Techniques (Painting Skills and Decal Applications)

### REQUIREMENTS AND APPROXIMATE COSTS:

1. Youth must be between 8-18 years of age. Teachers and mentors welcome, but must register, too.
2. **1 parent or adult guardian must attend**, per family, for youth under the age of 14.
3. Youths' knowledge and skills with model rocketry will be assessed **during the October classes.**
4. **Class Fee is \$30 per student or \$35 per family:** Covers the cost of one class binder (includes: index dividers, lessons, worksheets, and a reference manual) and miscellaneous in-class materials given out.
5. **Rocket kit costs will range between \$5 to \$50 for most kits (Skill Levels 1-4):** *COSROCS will be providing a numerous selection of kits for students to purchase at half the retail price or you may purchase your own.*
6. **Build Supplies' and Range Box Tools' Cost—approximately \$10-\$50:** Students must provide their own build supplies and range box tools, any extra rocket kits, rocket motors, etc. (**Do not purchase any chemicals, fillers or paints prior to November's class.**)

**REGISTRATION BEGINS IN SEPTEMBER!** Go to <http://www.cosrocs.org/> and click on the link for the "Class Registration Form" September 1, 2016.

