

MODEL ROCKETRY TIP SHEET

General/Natural
Resources Projects

Literature Needed:

Leader Literature

Leader's Guide -- All Units
LC1300 Model Rocketry

Member Literature

MC1302A Introduction to Model Rocketry, Unit 1 Jr./Int./Sr.
MC1302A Basic Model Rocketry, Unit 2 Jr./Int./Sr.
MC1303A Intermediate Model Rocketry, Unit 3 Jr./Int./Sr.
MC1304A Advanced Model Rocketry, Unit 4 Jr./Int./Sr.
MC1306 Designer Model Rocketry, Unit 6 Jr./Int./Sr.

Exhibit Requirements can be found at:

http://www.colorado4h.org/projects_resources/StateFairExhibitReq.pdf

Score Sheets can be found at:

http://www.colorado4h.org/events_opportunities/state_fair/score_sheets/index.php

e-Record can be found at:

http://www.colorado4h.org/projects_resources/erecords/index.php

Project Tips:

- Units 3, 4 and 6 require that the manual be completed and added to a study binder/notebook after the e-record.
- These units are progressive, suggesting that a member start at Unit 1 and work up to the the next units.
- The following websites list model rocket kits in skills levels 1-4:

www.apogeerockets.com (based out of Colorado Springs, CO)

www.estesrockets.com (based out of Penrose, CO)

www.questaerospace.com/index.asp (based out of Pagosa Springs, CO)

www.modelaerospace.com

www.fliskits.com

www.redriverrocketry.com

www.leadingedgerocketry.com

www.redarrowhobbis.com

www.discountrocketry.com

There are many more companies, but the above list offer kits in most skill levels, many with educational information and bulk rates. Clubs may need to collectively make an order with a company to meet minimum requirements for purchases.

- Enter your project in the county fair.
- Share information learned in talks and displays.



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Paint Tips :

1. Apply sanding sealer and sand. Use 320-grit increasing to 600-grit for fine finishes on balsa and basswood fins. For plywood fins start with 180- or 280-grit sandpaper.
2. Repeat step 1 and use a tack cloth.
3. Apply primer and sand.
4. Repeat step 3 two or three times.
5. Apply spray paint (Krylon) with several light coats and use a spray handle for spray cans.
6. Apply final coat of clear coat enamel.
7. Do not use decals that soak in water.

Launching Your Rocket:

1. Read all launching instructions carefully.
2. Make sure batteries are in good condition.
3. Make sure micro-clips do not touch each other or any other metal.
4. Don't forget the recovery wadding.
5. Use igniter plugs that are the right size. Too big of plug will block out the oxygen.
6. Be sure that the coated tip of the igniter is in direct contact with the engine propellant.

Judging Criteria for e-Record:

- E-record includes demonstrations, talks, story and pictures, with at least one action shot of you working on your project.
- Neatness and legibility.
- Number of rockets that you put together and may have launched.

Judging Criteria for Rocket:

- Paint used should be evenly applied.
- Check surface for smoothness (whether it was sanded or not).
- Check nose cone for fit and surface.
- Check fin alignment.
- Proper placement of launch lug.
- Check airfoiling and fillet of fins.
- Check recovery system(s).
- Check engine mount area.
- Check for rounded fin smoothness.
- Originality and creativity.
- Check decal application.