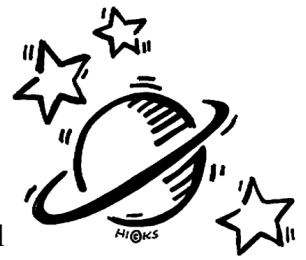


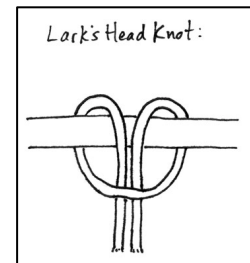
PACK 38 SPACE DERBY 2009



- **When & Where:** Saturday November 7th, New Life Church Fellowship Hall
- **Time:** Check-in between 8:00am – 8:45am. Race will begin at 9:00am sharp
- **Cost:** This event is FREE
- **Design Award Categories:** 1) Most Colorful, 2) Best Workmanship, 3) Best Cub Scout Theme, 4) Most “Out of this World” Design.
- **Questions:** Contact Al Engelmann at (312) 301-3070 or ajengel@comcast.net

Construction rules:

- Only basic materials supplied in the kit may be used.
- The rocket may be no longer than 7 inches, not including the propeller and fins.
- There are no other restrictions on the weight or design of the rocket as long as it does not result in additional thrust.
- Rubber Bands must be the bands that came with your space derby kit. Two rubber bands are allowed per rocket.
- Rubber bands may be secured to the dowel using a single lark’s head knot. No additional knots or alterations to the length of the rubber bands will be allowed.
- Graphite may be used to lubricate the propeller bushing if desired.
- Scout shall use rocket built for this year, no previous year rockets will be allowed.



Construction tips:

- The little plastic straw **MUST** go over the hook (not just the shaft as the drawing in the space derby kit illustrates). This is where the rubber bands will hook on - the wire hook will cut the rubber bands without the plastic straw liner!!!
- The propeller should have the rounded shaft-end pointing into (touching) the rocket – the flat end must point forward so the wire will catch.
- Lubricate the rubber bands (spray silicon, ethylene glycol, castor oil, ...)! Stretch them numerous times before loading, hand wind the bands numerous times before races (20 winds, then 40 winds, then 60, 80, 100) -- this helps relax the elastic properties of the band and makes it more pliable and durable.
- The plastic dowel at the rear of the space derby to hold the rubber bands **MUST** be kept from rotating - groove out the back so the dowel can sit in it. Make sure dowel does not twist when rubber motor is wound tight
- Do not glue the back dowel onto the rocket! It is used to wind the rubber bands before each race, and must be pulled off to re-load new rubber bands!
- Do not glue the front nose/propeller assembly into the front of the space derby. It is pulled off to re-load new rubber bands!
- When you carve, remember that the end with the small hole is the rocket nose.
- A new potato peeler is good for carving the shape!
- When shaping the rocket body, do not weaken the area around the hanger (carrier) or carve away the nose button circle.

