

# Pack 124 - Space Derby Official Rules

The race is open to all Tigers, Cub Scouts, and Webelos Scouts registered in Pack 124.

## Building

1. Only basic materials supplied in the Official BSA kit may be used. The hanging device supplied in the kit must be used.
2. READ INSTRUCTIONS IN BOX CAREFULLY!
3. The nose cone (propeller assembly) **must not be glued in place** on the nose of the rocket. A notch or groove should be formed in the tail of the rocket to seat the band holding dowel. The band holding dowel **must not be glued in place**. (These rules allow band replacement in case of breaks)
4. Propeller's rounded end must face the body of the plane.
5. The rocket body may be no longer than 7 inches, not including the propeller and fins.
6. There are no restrictions on the weight or design of the rocket. Rockets may be detailed in any way as long as it does not exceed length restrictions, is flight worthy, structurally sound and does not interfere with another rocket during the race. Rockets with wet paint will be disqualified
7. Scout may use graphite powder between the propeller and the bushing if desired. Other forms of lubrication are prohibited (except the officially lubricated rubber bands).

## Preflight

1. Rockets are to be submitted to the registration table **without rubber bands installed**. Freshly lubricated rubber bands (2) will be exchanged for the three bands included in the kit.
2. After installing the lubricated bands, each rocket will be inspected, registered and assigned a sticker with a spacecraft number.
3. After registration, rockets will be held by "*Space Command*" in the designated space hanger until race time.

## Racing

1. Prior to each heat, rocket numbers and lane assignments will be announced. Rocket transporters will take rocket racks from the space hanger and give them to the official winder and then take their position at the finish line. Each rocket will receive the same number of turns of the winder (depending on conditions). Upon completion of the race, "*Launch Officer*" will give the rocket back to the rocket transporter to place back in the designated space hanger.
2. All rockets must checked-in 10 minutes prior to race time or they will not race.
3. Once the rocket is submitted for entry, no further adjustments can be made except in the case of mechanical failure (see 4).
4. The race will be based on score or placement. Each rocket will race once on each track.
5. Any entry that experiences a mechanical failure will be allowed to re-race if it can be repaired during the same heat. It will count as a heat loss if it cannot be repaired prior to the beginning of the next heat. All repairs of this type must be done with "*Space Command*" observing and certifying as to its flight worthiness.
6. In the event that all rockets don't reach the end of the track, the one that goes the furthest is declared the winner.
7. All rulings by "*Space Command*" are FINAL.

## Scoring

1. Each plane will race in every "flight path" (there are 4).
2. Points will be accumulated based on the finishing position.
3. The winner will have accumulated the least number of points.
4. The top two performers from each den will compete in the Pack Final.
5. Any ties will be broken by one more flight between the tied aircraft.