



CUB SCOUT PACKS 70 & 72

OFFICIAL PINWOOD DERBY RULES

(portions taken from the Aurora District rules)

PURPOSE

The purpose of the Pinewood Derby is to provide an opportunity to have fun, teach good sportsmanship, follow rules, learn woodworking techniques, and do a creative project with a parent. It is not intended to build the fastest or fanciest race car on the planet, at any cost. Please keep this in mind when determining how much assistance the parent will provide to the Scout, and when interpreting the rules. Any interpretation of the rules that gives a mechanical advantage is disallowed.

CHECK-IN

1. Car check-in will be completed the evening before the race. This practice is to make the actual race event move more smoothly.
2. All cars must be checked in during the designated time in order to be included in the "Best in Show" competition. No exceptions. If a Scout is unable to attend the designated check-in time and wants to participate in the "Best in Show" competition, the Scout should make other arrangements with his Den Leader.
3. Tools and materials will be available for the Scouts to alter the weight of their car the evening before the race. **Note: Weight material provided by the Pack contains lead. Please provide your Scout with whatever precautionary measures you deem necessary.**
4. Cars may be checked in the morning of the race during the designated time but will not be included in the "Best in Show" competition. No tools or materials will be available for altering the car weight the morning of the race.
5. Lubrication of wheels and adjustment of car weight must be completed prior to check-in.
6. Check-in will include verifying car dimensions and weights.
7. Following check-in, cars will be impounded overnight.

BEST DESIGN COMPETITION

1. All cars checked in the evening before the race will be judged for "Best in Show". The cars judged for "Best in Show" are to be the same cars built for racing.
2. A single "Best in Show" trophy will be awarded to the winner of the best design competition. The Scouts name will be added to the trophy with the Scout retaining the trophy until the race the following year.

THE RACE

1. The Pack derby is divided into five races, one for each Cub Scout rank (Tiger Cub, Wolf, Bear, Webelos 1, and Webelos 2).
2. The winner at each Cub Scout rank will advance to the Pack final where "Fastest in Pack" will be determined.
3. A single "Fastest in Pack" trophy will be awarded to the winner of Pack final race. The Scouts name will be added to the trophy with the Scout retaining the trophy until the race the following year.

4. Dependent upon the number of lanes on the track, each race will be run such that each car will race at least once on each lane of the track. This does not mean that each car will race every other car. Points will be awarded to each car based upon the order of finish in each heat raced. The total points for each car will determine the order of finish (low total wins).
5. The Scout who constructed the car does not have to be present for his car to be raced. The Scout does however need to make arrangements through his Den Leader for his car to be raced in his absence.
6. Following the Scout races, there will be special races for siblings and adults. Siblings and adults must purchase their own kits from the Pack or directly from the Scout Shop.

RACE CAR SPECIFICATIONS

1. Only cars made from Cub Scout Derby Kit #17006, BSA's "Official Grand Prix Pinewood Derby Kit" will be accepted for this derby. Hobby shop substitutions are NOT acceptable. All instructions and rules included in the kit must be followed.
2. The Derby car must be a new car constructed for this years Pack derby.
3. The maximum/minimum width, length, weight, and bottom clearance dimensions given in the kit instructions will apply for this derby. Maximum height is 4 inches from bottom of wheels, or less if required to fit under the finish gate.
4. The wheel-base (length between axles) on the block provided with the Derby Kit must not be altered ($4 \frac{3}{8}$ inches). The pair of axles may be shifted towards the back or front of the wood block, provided that the wheel-base remains the same.
5. Gauges used at the Pack derby will determine if the entrant's car meets these physical dimensions. The scale provided at the Pack derby will determine the official weight of each entrant's car. The maximum weight is 5.00 oz, or 141.75g, no exceptions.
6. Pre-race modifications required to bring the car up to the required derby specifications must be completed prior to checking the car in. Once cars are checked in, no modifications can be made.
7. All add-ons to the basic car body must be securely fastened to the body so that they do not come off during the race heats.
8. Only the axles supplied with the Kit (they are essentially nails) may be used, and may not be altered. The only exceptions to this will be the smoothing of the "burr" made during the manufacture of the axle and polishing of the axle. No bearings, bushings, washers, springs, or any friction-reducing hardware/material between the wheel & body will be allowed. No modifications of the car are allowed where the axles attach; axles must attach to the wooden part of the car (not to metal).
9. Only the plastic wheels supplied with the Kit (wheels stamped on the inside with the BSA logo) may be used, and may not be altered. The only exception to this will be the smoothing of the "burr" made during the manufacture of the wheel that sometimes occurs on the wheel tread. No rounding of the wheels is allowed – the "tread" of the wheel must remain flat. The weight of the wheels supplied with the Kit must be unaltered – i.e., no weight can be added or removed from the wheels. Nothing can be sanded off the wheel; nothing can be added to the wheel.
10. No loose parts are allowed on or inside the car (such as rolling BB's or loose coins).
11. The car must be freewheeling, with no starting devices.
12. Only dry lubricants may be used for lubricating the axles and wheels (no silicone).

13. Chewing gum is not an acceptable method of attaching anything to the car and the car will be immediately rejected.
14. All Scouts must clearly write their names on the bottom of their cars.

REPAIRS AND LUBRICATION

1. Lubrication in the Pit Stop before check-in will be allowed. Once the car has been checked-in, no further lubrication or adjustments of any kind will be allowed.
2. If, during any heat, something attached to the car comes off and interferes with the running of the heat, the heat will be re-run with all cars. The item that fell off will not be put back on the car, nor can additional weight be added to compensate.
3. If the fallen item has not interfered with the running of the heat, the heat will stand, and the fallen item will not be put back on the car.
4. If the fallen item is something originally a part of the car kit, and there is a resulting interference with the running of the heat, the heat will be re-run, with a five minute period allowed for repairs.
5. If a car is damaged during the race and obviously runs slower, all races stand, but repairs are allowed for a maximum of 5 minutes.
6. If the fallen item is something originally a part of the car kit, and there is no resulting inference, the heat will stand as run, and the car will have 5 minutes to be repaired.
7. Delays for repairs will only be allowed twice for the same car. If delays for repairs are required for a third time, the car instead will be immediately disqualified from further competition.
8. Interference defined: An item falling from one car going into another lane or lanes, and interfering with the movements of any other car, or cars.
9. Check-in adjustments to bring the car to race specification will be done by the Scout and his adult partner. Repairs needed as a result of a race heat problem will be done only by the Scout and the Pit Boss. All repaired cars will be re-inspected.

CAR HANDLING

1. Once the car has been inspected and accepted for the Derby only the Scout who made the car and the Car Handler will move the car.
2. The Scout who made the car will move it from the finish line to the holding area, and the Car Handler will move it from the holding area to the starting line.

SCORING

1. The electronic scoring device at the finish line of the track will determine the place for each car in each heat. If the electronic scoring device registers an error in one of the lanes, the heat will be re-run with all cars. The decision of the race committee chairperson will be final.
2. In the event that the electronic scoring device fails to function during the derby, and cannot be repaired in a reasonably short time, race committee members will be assigned to determine the race finish order for each heat.
3. Ties will be handled as follows:
 - A tie in any position of any heat will be scored for the position finished for each car in the tie. There will be no heat re-runs for ties.
 - A position tie at the end of any race of the derby will be settled by running only the cars tied for that position using the above rules until one winner is determined for that position.

