



Pack 64 Pinewood Derby Rules



The purpose of these rules is to provide a reasonable and level playing field for all contestants. Parents, please review the following with your son. A construction sheet is included with each kit.

Eligibility of Contestants and Cars

- The competition is open to all Pack 64 Cub Scouts. In case of illness or valid conflict, a family member or friend may represent an absent scout.
- The scout must have made his car for this racing season (i.e. last year's car cannot be used this year).
- All cars must be built with components in the official BSA Grand Prix Pinewood Derby Kit provided.

Length, Width & Clearance

- Maximum overall width (including wheels and axles) shall not exceed 2 $\frac{3}{4}$ ".
- Maximum width between wheels shall be 1 $\frac{3}{4}$ " so the car will clear center guide strip.
- Minimum clearance between the bottom of the car and track shall be $\frac{3}{8}$ " so the car will clear the center guide strip.
- Maximum length (including wheels) shall not exceed 7 $\frac{1}{8}$ ".
- Maximum height shall not exceed 4 $\frac{1}{2}$ " in order to clear our race gate.
- The wheelbase (distance between the front and rear axles, center to center) may not be changed from the kit body distance of 4 $\frac{3}{8}$ ". Precut slots are provided on the car with the correct spacing.

Wheels and Axles

- Only the wheels and axles from the official BSA Grand Prix Pinewood Derby Kit may be used, **without** modification.
- Because of potential manufacturer burrs, axles may be lightly filed, sanded and polished to remove them. Wheels may be lightly sanded and polished. Axles must be mounted on the car with glue. Be careful to not get glue in the wheel itself.

Weight and Appearance

- Car weight shall not exceed 5 ounces. The readings of the Pack 64 Official Race Scale will be considered final.
- All weights must be permanently affixed to the car by glue, nail or screws. Taping of weights to the car is prohibited. The use of movable or liquid weight is prohibited.
- The car may be carved, sculpted, and/or sanded in order to enhance performance and/or appearance.
- No loose materials of any kind are permitted on or inside the car for weight, decoration or any other reason.
- Additional materials may be added to the car for the following purposes only:
 - Weights may be added to increase the weight or alter the weight distribution of a car.
 - Affixed paints and decals may be added to alter the appearance and or aerodynamics of a car.
 - The car must be freewheeling with no starting device or other propulsion, such as adhesives, magnets, rubber bands, motors springs, jets, etc.
 - Metal frames and metal axle supports are prohibited.
 - Wood putty, or a similar wood like substance, may be used as filler or to make decorations for the car.
- Indented noses are prohibited. Cars like the one pictured below will position on the starting pin ahead of the other cars and therefore have an unfair head start advantage.



Lubrication

- Only dry powdered lubricants, such as graphite or white powder Pinewood Derby Car Lubricant, may be used. Oils and silicone sprays are prohibited. (Oils and silicone sprays may also deteriorate the plastic wheels.)
- Wheels bearings, washers or bushings on the axles or wheels are prohibited. This includes "wheel covers" which serve to keep the wheel hubs from contacting the car body. It also includes "hub caps" or anything else that might serve as lubrication well or tap.
- A car may be lubricated before inspection. This is the only time lubrication is permissible.
- To be competitive, the car needs to weigh as close to 5 ounces as possible and have dry graphite powder as a lubricant on the axles. Weights and dry graphite powder may be purchased at Michael's, Hobby Lobby or any other store that sells hobby items. Other items may be used to weight the car, but must be glued or screwed to the body of the car and cannot make contact with the track or other cars. Oils and silicone sprays may also deteriorate the plastic wheels.

Registration & Inspection

- All cars must be registered for competition during our registration night or immediately upon arrival on race day.
- Each car must pass an inspection by a race official before it may compete. The race official has the right to disqualify cars that do not meet these rules. Car owners will be informed of the violations and given an opportunity to modify the car to meet these rules and re-register, re-entering the registration line at the back.
- Each racer must follow his car through the inspection process until it has been approved. At that time, the car will be submitted to race officials for placement on the Starter's table. Each car and Scout will be assigned a car number, which is how the computer keeps track of the cars. Only race officials will have access to the cars from inspection and approval until race time for each individual heat. This is to protect the cars from any damage.
- The race officials will decide any disputes. Their decisions are final.
- Ungentlemanly or unsportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or race area.

Ground Rules

- If a car leaves its lane and/or interferes with another car, the heat will be run again. If the same car leaves its lane and/or interferes with another car a second time, the heat will be run again without the car and it will automatically be assigned a default time of 9.999 seconds for that heat.
- If a car suffers a mechanical problem and a repair can be accomplished within 5 minutes, the heat will be run again, after the car is repaired. If not, the car will be automatically assigned a default time of 9.999 seconds for that heat.

The Race

- The track consists of six lanes with an electronic starting gate and finish line that inputs into a computer.
- The computer will determine racing order and lane assignments. All racers will race in each lane an equal number of times, with the times for all races totaled. The fastest combined time will decide the overall winners.
- Times will be recorded using a computerized timer which records times to the nearest 1/1000 of a second.
- A race may be re-run at the discretion of the race officials.
- Prior to each race, the car numbers for the next race will be announced. Race officials will get all cars from the starters table and place each on the track in the proper lane. The racers will then proceed to the finish line to cheer on his car. A race official will return the car to the starters

table for subsequent races. At no time will the racers touch the cars.

- All Scouts will race in the scout competition together regardless of age. Each scout is racing against the clock. Pack 64 utilizes a laser starting gate and finish line which is connected to a computer. At the end of all the races, winners will be determined by the fastest combined time by the computer.
- The 3 fastest scouts for the entire pack will be awarded prizes.

Design Competition

All cars entered in the Scout competition will also have the opportunity to be judged by the scouts based on the following design categories:

Fastest Looking Car Slowest Looking Car Most Colorful Car Coolest Car

Scouts will have a ballot and will write down the car number they believe should win in each category. All scout cars will be judged together regardless of rank. All four winners will be awarded prizes.

The Masters Derby Race

After the Scouts' derby is complete and the winners have been determined, we will be holding a "Masters Derby". The Masters will be for any and all parents and siblings of our scouts that wish to make a race a car. The same rules as stated above will govern the Masters Derby.

A prize will be awarded to the winner of the Masters Derby. This prize will be held by the winner for bragging rights until next year's derby, for which the prize must be returned, as it will be awarded again.